Habitat for Humanity East Bay, Redwood Hill Property Oakland, Alameda County, California Targeted Brownfields Assessment Report

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ist of Abbreviations and Acronyms

AAR adjacent auto repair

ACC Environmental Consultants

ACHCSA Alameda County Health Care Services Agency

AR auto repair AS auto storage

BTEX benzene, toluene, ethylbenzene, xylenes CHHSL California Human Health Screening Level

COC Chain-of-Custody

DTSC California Department of Toxic Substances Control

E & E Ecology and Environment, Inc. ESL Environmental Screening Level

FSP Field Sampling Plan GPS global positioning system

in Hg inches of mercury

LP lead paint

mg/kg milligrams per kilogram

mL milliliter

MS/MSD matrix spike/matrix spike duplicate

MTBE methyl tertiary butyl ether

PRT post-run tubing RH Redwood Hill

RSL Regional Screening Level SAP Sampling and Analysis Plan

START Superfund Technical Assessment and Response Team

SV soil vapor

TBA Targeted Brownfields Assessment

TEPH total extractable petroleum hydrocarbons

TPH total petroleum hydrocarbons

TPHd TPH as diesel
TPHg TPH as gasoline
TPHmo TPH as motor oil

U.S. EPA United States Environmental Protection Agency

USA Underground Services Alert UST Underground Storage Tank

 $\mu g/l$ micrograms per liter $\mu g/m^3$ cubic meter of air

1 Introduction

The United States Environmental Protection Agency (U.S. EPA), Region 9, directed the Ecology and Environment, Inc. (E & E) Superfund Technical Assessment and Response Team (START) to conduct a Targeted Brownfields Assessment (TBA) at the Habitat for Humanity East Bay Redwood Hill property located in Oakland, Alameda County, California.

Field activities related to this TBA were initiated following the award of a TBA grant to Habitat for Humanity East Bay for assessment of the properties included in the planned Redwood Hill redevelopment project. The proposed redevelopment for residential land use of the site requires additional environmental data to assist Habitat for Humanity East Bay, the Alameda County Health Care Services Agency (ACHCSA), and the California Department of Toxic Substances Control (DTSC) with planning decisions.

As part of this TBA for the Redwood Hill property (site), START prepared a Field Sampling Plan (FSP) for collection and laboratory analysis of soil and soil vapor samples. The FSP is a site specific addendum to a *Generic Sampling and Analysis Plan for Targeted Brownfields Assessments*, dated June 2009 (SAP). The U.S. EPA Quality Assurance Office approved the FSP (*Field Sampling Plan, Targeted Brownfields Assessment of Habitat for Humanity East Bay Redwood Hill Property at 4856, 4862, and 4868 Calaveras Avenue, Oakland, California*, dated June 2009).

This assessment extends previous site investigation activities to characterize shallow soils and shallow soil vapor, as appropriate, and to provide the appropriate environmental data required to make decisions regarding redevelopment of the properties for residential use. Specific sampling objectives include the following:

- Assess the horizontal and vertical extent of contamination in the vicinity of the former Underground Storage Tank (UST) system at 4868 Calaveras Avenue.
- Assess potential contamination to soil in the vicinity of the former auto storage area at 4868 Calaveras Avenue.
- Assess potential contamination to soil in the vicinity of the former hazardous materials storage area and former hydraulic lifts at 4868 Calaveras Avenue.
- Assess potential contamination to soil at 4856 Calaveras Avenue in the vicinity of an adjacent offsite automotive repair facility.





- Assess potential contamination to soil resulting from lead-based paint formerly used on structures at 4856, 4862, and 4868 Calaveras Avenue.
- Assess potential contamination to soil vapor in the vicinity of proposed structures.

This report was prepared based on information collected from historical file review and June 2009 START field assessment activities. This report contains a summary of historical documents related to the site, a discussion of the E & E START June 2009 site activities, a discussion of laboratory analytical data from this assessment, and a summary of the findings of the assessment.

2 Site Background

2.1 Site Location

The site is located at 4856, 4862, and 4868 Calaveras Avenue, Oakland, Alameda County, California. This assessment focuses on three contiguous parcels: assessor's parcel numbers 037-2552-011, 037-2552-012, and 037-2552-030 with a total recorded acreage of approximately 0.7 acres. The site is situated adjacent to Interstate 580 approximately four miles east southeast of downtown Oakland. The geographic coordinates for the approximate center of the area of concern are 37° 47' 5.52" N, 122° 11' 16.9" W. Figure 1 shows the location of the property and Figure 2 shows the site features including the parcel numbers. Figures are contained in Appendix A.

2.2 Site Description

The site is located in an area of low rolling hills southwest of and adjacent to the steeper east bay hills. Residential properties border the site to the north; an apartment building and Buell Street border the site to the east; Calaveras Boulevard borders the site to the south with interstate 580 beyond Calaveras Boulevard; and Dan's Auto Repair borders the site to the west. Land use in the surrounding area is residential, institutional, and commercial.

2.3 Topographic and Geologic Information

Topography at the site is relatively flat with a gentle slope to the south southeast. Soils at the site consist of silty and sandy clay with some gravel lenses to a depth of approximately 10 feet below ground surface (bgs). Groundwater has been encountered at the site at depths between 16.68 and 20.51 feet bgs, based on previously recorded water levels in three on-site monitoring wells (ACHCSA 1997). Information on soil stratigraphy below 10 feet bgs was not available in any of the documents reviewed.

2.4 Site History

2.4.1 Land Use

Prior to 1926, the subject properties were developed as three separate residential properties. In the late 1950's to mid 1960's, the easternmost of the three residences (4868 Calaveras Avenue) was redeveloped as a service station that included three 8,000-gallon USTs for fuel and one 250-gallon used oil UST. In 1981, the USTs were removed; however, the site continued to be used as an automotive service facility until approximately 2000, when it appears that the canopy and service station building were removed. The two remaining residences on the two western parcels (4856 and 4862 Calaveras Avenue) were demolished between 2003 and 2007 in preparation for



redevelopment. The site is currently a vacant, fenced, and unpaved lot pending re-development. Habitat for Humanity has proposed to re-develop the site for multiple-family residential use. The locations of proposed structures at the site are shown on Figure 2 (Appendix A).

2.4.2 Previous Investigations

Several investigations were conducted at the site between September 1995 and October 2008. This section provides a chronological summary of the investigations conducted within the subject parcels.

The initial assessment (performed by ACC Environmental Consultants (ACC)) was a Phase II environmental site assessment, prepared in September 1995 (ACC 2000). A total of seven soil borings were advanced in the vicinity of the former UST systems. Soil and grab groundwater sample results indicated the presence of gasoline hydrocarbons and gasoline constituents in soil at concentrations up to 110 milligrams per kilogram (mg/kg) total petroleum hydrocarbons (TPH) as gasoline (TPHg), 0.24 mg/kg benzene, 0.19 mg/kg toluene, 0.083 (mg/kg) ethylbenzene, and 0.016 (mg/kg) xylenes. One of the two grab groundwater samples collected contained 2,800 micrograms per liter (μ g/l) TPHg, 13 μ g/l benzene, 6.7 μ g/l toluene, 13 μ g/l ethylbenzene, and 16 μ g/l xylenes (ACC 2000). A report of findings for this sampling event was not available for review, so neither the locations of these borings nor detailed laboratory analytical results are known.

In August 1996, three groundwater monitoring wells were constructed and sampled by ACC during one event. Groundwater samples collected in August 1996 did not contain detectable concentrations of any of the tested constituents (ACC 2000). A report of findings for this sampling event was not available for review, so neither the locations of the wells, analytes tested, details of well development/ sampling, nor detailed laboratory analytical results are known. Regulatory case closure was granted by the ACHCSA on March 20, 1997, in relation to the USTs.

In December 2000, a Phase I environmental site assessment (ACC 2000) was prepared for the 4868 Calaveras Avenue property by ACC. Results of the December 2000 Phase I indicate that the following recognized environmental conditions were present:

- Former USTs
- Vent pipes and cathodic protection
- Hazardous materials/ hazardous wastes/ staining/ used batteries
- Hydraulic lifts
- Stained surfaces

In early 2001, a Phase II environmental site assessment (ACC 2001) was prepared by ACC for the 4868 Calaveras Avenue property. Laboratory analytical results from the analysis of soil samples collected in 2001 indicate the presence of total extractable petroleum hydrocarbons (TEPH) as diesel at concentrations up to 44 mg/kg and TEPH as gasoline at concentrations up to 640 mg/kg. Although soil samples were submitted for analysis for benzene, toluene,



ethylbenzene, xylenes (BTEX), and methyl tertiary butyl ether (MTBE) the laboratory's detection limits were above current screening levels and therefore it is unclear whether these constituents were present at concentrations above the current screening levels. While a data table is available listing most of the results from the February 2001 Phase II assessment, no figure is available to indicate where the 2001 samples were collected. Results of the February 2001 Phase II assessment indicate the following:

- Field observations and low concentrations of TEPH identified at 4 feet bgs across the site indicate that no significant release has occurred.
- The low total lead concentration reported in soil is indicative of naturally occurring concentrations and does not represent a soil disposal issue.
- A small volume of TPHg contaminated soil exists at approximately 3 to 6 feet bgs along former product dispenser lines; however, TPHg is largely degraded and no reportable BTEX exists.
- Fine-grained soils observed to 8 feet below grade at the site are likely to limit the vertical migration of constituents of concern and any contaminated soil will be highly localized.

A Phase I environmental site assessment was prepared for the 4856 Calaveras Avenue and 4862 Calaveras Avenue properties in December 2001 by International Geologic (ACC 2006a). A copy of the December 2001 Phase I was not available for review by E & E. In September 2006, Phase I environmental site assessment updates were prepared by ACC in two separate reports, for the 4868 Calaveras Avenue and 4856/4862 Calaveras Avenue sites, respectively. Results of the September 2006 Phase I assessment update for 4868 Calaveras Avenue identified the following recognized environmental conditions:

- Hazardous materials (a single 1-gallon bottle of antifreeze and suspect asbestos containing building materials)
- Surficial staining
- Storm drain

Results of the September 2006 Phase I assessment update for 4856/4862 Calaveras Avenue identified the following recognized environmental conditions:

- Suspect asbestos-containing building materials
- Suspect biological growth
- Suspect lead based paint
- Hazardous materials (a single, unlabeled 1-gallon container)
- Surficial staining
- Storm drain





In August 2006, a Soil and Groundwater Management Plan was prepared by ACC (ACC 2006c). The management plan described the following assessment activities that were requested by the ACHCSA. According to the ACC document, the ACHCSA requested the following be performed prior to or during construction.

- Collection and analysis of soil samples at the lowest points of gradation/ excavation
- Collection and analysis of soil samples along areas contaminated by residual contamination at the Site
- Collection and analysis of soil samples at areas where petroleum odors are observed
- Collection and analysis of soil samples at graded soil from within 10 feet of areas that once contained underground tanks or piping prior to disposal
- If groundwater is encountered during gradation or sampling, a grab sample will be collected and analyzed

In October 2008, a Phase I environmental site assessment (ENVIRON 2008) was prepared by ENVIRON International Corporation for the 4856, 4862, and 4868 Calaveras Avenue properties. The October 2008 Phase I assessment identified the following recognized environmental conditions:

- Soil and groundwater contamination former USTs
- Shallow soil contamination former auto repair activities.

3 E & E START Activities

E & E START performed field assessment activities in accordance with the *Field Sampling Plan*, *Targeted Brownfields Assessment of Habitat East Bay Redwood Hill Property at 4856*, 4862, and 4868 Calaveras Avenue, Oakland, California, dated June 2009, as approved by the U.S. EPA Quality Assurance Office. The approved FSP was assigned EPA Quality Assurance Program Document Control Number BNFD0361SV1.

Between June 14 and June 19, 2009, the START conducted an investigation consisting of the collection of shallow soil samples (10 feet bgs or shallower) and shallow soil vapor samples (5 feet bgs) for laboratory analysis at 33 boring locations. Before drilling began, a drilling permit was obtained by E & E START from the Alameda County Public Works Agency (permit number W2009-0570). A copy of the drilling permit is contained in Appendix B. To determine whether buried utilities were located within approximately 5 feet of each boring location, Underground Services Alert (USA) was notified and each location was surveyed for subsurface utilities by Precision Locating, LLC, of Brentwood, California. No buried utilities were identified near the boring locations during the survey.

3.1 Soil Sampling

E & E START advanced 30 boreholes by using direct push drilling equipment to collect discrete grab soil samples at depths of 2, 8, or 10 feet bgs, depending on location and analysis. Soil samples were collected from five areas of concern at the site to evaluate the potential threat to human health or the environment related to potential TPH, BTEX, and metals contamination. These areas are referenced as: adjacent auto repair (AAR), UST system (UST), auto storage (AS), auto repair (AR), and lead paint (LP) areas. Soil samples were collected at three boring locations at the Redwood Hill (RH) site in the AAR area (RH-AAR-1 through RH-AAR-3), at fourteen locations in the UST area (RH-UST-4 through RH-UST-17), at two locations in the AS area (RH-AS-18 and RH-AS-19), at five locations in the AR area (RH-AR-20 through RH-AR-24), and at six locations in the LP area (RH-LP-25 through RH-LP-30). A site map showing soil sample locations is provided as Figure 3 (Appendix A). Table 1 below summarizes the scope of sampling performed.



Table 1 Soil Sampling Summary

Area/Issue of Concern	Matrix	Number of Borings	Boring IDs	Sampling Depths (Feet)	Analysis
Adjacent (Offsite) Auto Repair	Soil	3	AAR-01 to AAR- 03	0.5, 2, 4	Cadmium, chromium, lead, nickel, zinc, TPH (g/d/mo), and BTEX
UST	Soil	14	UST-04 to UST- 17	0.5, 2, 4, 8, 10	Lead, TPH (g/d/mo), and BTEX
Soil Vapor	Soil Vapor	3	SV-31 to SV-33	5	BTEX
Auto Storage	Soil	2	AS-18 & AS-19	0.5, 2, 4, 8, 10	Cadmium, chromium, lead, nickel, zinc, TPH (g/d/mo), and BTEX
Auto Repair	Soil	5	AR-20 to AR-24	0.5, 2, 4, 8	Cadmium, chromium, lead, nickel, zinc, TPH (g/d/mo), and BTEX
Lead Based Paint near Former Structures	Soil	6	LP-25 to LP-30	0, 1, 2	Lead

At each boring location, soil cores were collected to document lithology and for laboratory analysis using a 2.125-inch outside diameter, 4-foot long macro-core sampler. Lithologic boring logs for each location are contained in Appendix C. Soil samples for analysis of TPH as diesel (TPHd), TPH as motor oil (TPHmo), and metals were collected by either placing soil into precleaned and certified 4-ounce sample containers, or by cutting polyethylene terephthalate glycol core liners at the appropriate depth then sealing each end with aluminum foil and disposable polyethylene end caps. Samples for analysis of BTEX and TPHg were collected by extracting soil directly from the terephthalate glycol core liners at the appropriate depth with a new disposable measured plastic syringe sampler. Five grams of extracted soil was placed into each of the three pre-preserved laboratory provided 40 milliliter (mL) vials and one unpreserved 100 mL plastic container (U.S. EPA Method 5035). After collection, samples were individually labeled, placed into an ice-filled cooler, and documented on the appropriate Chain-of-Custody (COC). To obtain the additional volumes of soil required for TPHd, TPHmo, and metals duplicate and matrix spike/matrix spike duplicate (MS/MSD) analysis, soil was collected from multiple co-located borings then homogenized in a new disposable container before being placed in 4-ounce sample jars. Additionally, equipment rinse blanks were collected at the end of each day's activity and submitted for analysis of each analyte requested for any sample that day. Samples to be analyzed for TPHd and TPHmo were submitted to EPA Region 9 laboratory in Richmond, California. Samples to be analyzed for TPHg and BTEX were submitted to Test America in Sacramento, California. Samples to be analyzed for lead or the leaking underground fuel tank metals (cadmium, chromium, lead, nickel, and zinc (LUFT 5 metals)) were submitted to Liberty Analytical Corporation (an EPA contract laboratory) in Cary, North Carolina.



3.2 Soil Vapor Sampling

E & E START advanced three boreholes for the collection of soil vapor samples to depths of 5 feet bgs using direct push drilling equipment. Soil vapor samples (RH-SV-31 through RH-SV-33) were collected in the vicinity of proposed site structures to evaluate the potential threat to human health or the environment related to potential BTEX contamination. These samples were referenced as soil vapor (SV). One sample (RH-SV-BKG) was collected from ambient air at the up-wind property line (northwestern corner) in the approximate breathing zone for evaluation of background concentrations of BTEX.

Boreholes were advanced at soil vapor sample locations using a 1.25-inch diameter, 5-foot long probe rod string, with a post-run tubing (PRT) system adapter attachment for vapor collection. The PRT sampling system utilized a retractable drive point that is deployed by pulling the tool string up slightly when the sampling depth is reached. Disposable new polyethylene tubing is then attached to a stainless steel threaded fitting. The stainless steel fitting with the tubing attached is then inserted into the probe rods and threaded into the PRT adapter. An o-ring on the stainless steel fitting provides an air tight seal. Approximately 500 ml to 1,000 mL of vapor was purged at each location before sampling.

Each sample was collected into a pre-cleaned, laboratory certified, 400 mL SUMMA canister. Before vapor sample collection, each SUMMA canister was pressure tested using a certified gauge to document initial canister vacuum. Initial and post-sampling canister vacuum were recorded in inches of mercury (in Hg). After purging the tubing, the purging cylinder was isolated from the tubing using an in-line valve, and the sampling canister was attached to an in-line, air tight manifold. The canister was then filled at a rate of approximately 200 mL per minute using the in-line valve to regulate flow rate. While a flow regulator is the preferred method to restrict canister filling rate, an appropriate regulator was not available from the laboratory for this project. After filling, the final vacuum was recorded for each canister. All vapor samples were submitted to EPA Region 9 laboratory in Richmond, California, to be analyzed for BTEX.

When all samples were collected, each borehole was grouted with neat cement mixed with potable water. Incidental soil cuttings and decontamination rinse water were placed in 55-gallon United States Department of Transportation-approved drums and stored on-site for disposal by the site owner. Additionally, the geographic coordinates of each borehole location were documented using a portable global positioning system (GPS) unit. A photographic log showing representative field activities is contained in Appendix D.

4 Analytical Data

Soil samples and equipment rinse blanks were analyzed for the following constituents of potential concern:

- TPHg, TPHd, and TPHmo by U.S. EPA Method 8015
- Cadmium, chromium, lead, nickel, and zinc by U.S. EPA Method 6010B
- BTEX by U.S. EPA Method 8021B

Soil vapor samples were analyzed for BTEX by U.S. EPA Method TO-15.

The data for TPHg and BTEX in soil were reviewed following guidelines specified in the *Draft EPA Region 9 Quality Assurance Office Guidance*, *Region 9 Superfund Data Evaluation/Validation Guidance*, R9QA/006.1, dated December 2001. The data obtained from the non-Contract Laboratory Program laboratory (Test America) were validated by the E & E START, and all parameters were evaluated to be within acceptable quality assurance and quality control limits (some with minor qualifications) established in the U.S. EPA-approved SAP. Data were found to be of known quality and were deemed by START to be usable for the purposes of this investigation with qualifications as indicated in the attached data tables. Copies of the data validation reports are contained in Appendix E.

4.1 Summary of Soil Sample Results

E & E START compared constituent concentrations in soil samples to the lowest of the following: 2008 residential Regional Screening Level (RSL) established by the U.S. EPA Region 9, the residential Environmental Screening Level (ESL) for shallow soil established by the San Francisco Bay Regional Water Quality Control Board, or the residential California Human Health Screening Level (CHHSL) established by the California Office of Environmental Health Hazard Assessment. Soil sample analytical results for TPHg BTEX and TPHd/TPHmo are presented in Table 2 (Appendix F). Soil sample analytical results for metals are presented in Table 3 (Appendix F).

All analytical results for TPHg in soil were below the applicable laboratory reporting limit. However, unknown hydrocarbons were reported within the TPHg analyses at concentrations exceeding the ESL for TPHg of 83 mg/kg in samples collected at boring locations: RH-UST-8 (10'), RH-UST-9 (8'), RH-UST-16 (10') and RH-UST-17 (4') (8') (10') at concentrations



ranging from 130 mg/kg to 270 mg/kg. The laboratory reported results as unknown hydrocarbons when the peaks on the sample chromatogram did not correspond with peaks on the standard chromatogram for TPHg. Most laboratories quantify all petroleum hydrocarbons within the gasoline range (for example aged gasoline) as TPHg or gasoline range organics. Because the laboratory indicated in its report that all of the unknown hydrocarbon detections were within the gasoline range, those detections are treated herein as TPHg detections. All unknown hydrocarbon detections listed in Table 2 are within the gasoline range and therefore were quantified using the gasoline standard. Distribution of TPH in shallow soil is shown on Figure 4 (Appendix A). The approximate extent of soil containing concentrations of TPH that are above screening levels is also shown on Figure 4. The total volume of soil containing concentrations of TPH that exceed screening levels is approximately 450 cubic yards. The following four areas contain concentrations of TPH exceeding screening levels:

- Former hazardous materials storage area (10' X 10' X 1') contaminated from surface to approximately 1 foot bgs
- Hydraulic lift location (10' X 10' X 10') contaminated from surface to approximately 10 feet bgs
- Former dispenser island (10' X 40' X 10') contaminated from surface to approximately 10 feet bgs
- Former UST location (35' X 45' X 10') contaminated from approximately 6 feet bgs to approximately 10 feet bgs.

BTEX constituents were not detected at the method reporting limit, or were detected at concentrations less than their lowest respective screening level in all samples analyzed, except at boring location RH-UST-17 (4'). At boring location RH-UST-17(4'), benzene was detected at a concentration of 0.046 mg/kg, which exceeds the ESL of 0.044 mg/kg. Laboratory analytical results for BTEX analyses are tabulated with the applicable screening levels in Table 2 (Appendix F).

Cadmium was detected above the ESL of 1.7 mg/kg in samples collected at boring locations: RH-AS-18 (0.5') at 1.8 mg/kg (duplicate sample only), RH-AS-19 (8') at 2.2 mg/kg, and RH-AS-19 (10') at 2 mg/kg. Lead was detected at concentrations above its lowest applicable screening level (ESL) of 150 mg/kg in samples collected at boring locations RH-AAR-02 (0.5') at 443 mg/kg, RH-LP-27 (0') at 339 mg/kg, RH-LP-28 (0') at 359 mg/kg, RH-LP-29 (0') at 190 mg/kg, and RH-LP-30 (0') at 228 mg/kg. Chromium, nickel, and zinc concentrations were less than their respective screening levels in all samples analyzed. The distribution of lead concentrations that exceed the ESL of 150 mg/kg appear to correlate with the locations of former residential structures that were likely painted with lead-based paint. Lead concentrations exceeding the ESL of 150 mg/kg are restricted to a depth of 0.5 feet or at the surface, consistent with a lead-based paint source from former structures. Laboratory analytical results for metals analyses are tabulated with the applicable screening levels in Table 3 (Appendix F). Distribution of lead in shallow soil is shown on Figure 5 (Appendix A). The approximate extent of soil containing concentrations of lead that are above the screening level is also shown on Figure 5. Approximately ****** cubic yards of soil contains concentrations of lead that exceed the screening level from the ground surface to approximately 1 foot bgs.



According to Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory, Lawrence Berkeley National Laboratory, 1995, updated April 2009 (LBNL 2009), estimates of the upper limit for background concentrations of cadmium include 1.1 mg/kg upper estimate for regional background, 2.7 mg/kg as a 95% upper tolerance limit value for background concentrations, and 5.6 mg/kg as a 99th percentile value for background concentrations. Concentrations of cadmium detected at the site are low, within the range of published background concentrations for the area, and do not show an obvious distribution pattern with respect to historical land use; thus, they likely represent natural occurrence.

4.2 Summary of Soil Vapor Sample Results

Analytical results for BTEX in soil vapor indicated low concentrations of the individual BTEX constituents are present at concentrations up to 30 micrograms per cubic meter of air (μ g/m³). Concentrations of all of the BTEX constituents were less than their respective screening levels in all soil vapor samples. Laboratory analytical results for BTEX soil vapor analyses are tabulated with the applicable screening levels in Table 4 (Appendix F).

4.3 Summary of Quality Assurance/Quality Control Sample Results

Except for toluene at a concentration of $0.33~\mu g/L$ in the rinse blank collected on June 16, 2009, TPHg, TPHd, TPHmo, and BTEX were not detected in any of the rinse blanks or method blanks. The single detection of toluene in the June 16, 2009, rinse blank is not considered significant because toluene was not detected in any of the samples collected that day. LUFT 5 metals were not detected in the rinse blanks except for zinc, which was detected in the rinse blanks collected on June 16, 2009, and June 17, 2009, at concentrations up to $5.1~\mu g/L$. Of nine method blanks analyzed as part of the metals analysis, lead was detected in six of those samples at concentrations that are below the laboratory detection limit at estimated concentrations of up to 0.63~mg/L. Cadmium and chromium were detected in one of the method blanks at concentrations of 0.076~mg/L and 0.056~mg/L, respectively. Zinc was detected in two of the method blanks at concentrations of up to 2.0~mg/L. The presence of metals in some laboratory method blanks indicates that some of the reagent water used by the laboratory was contaminated with low concentrations of the detected metals.

The low concentration detections of zinc in two of the rinse blanks and two of the method blanks are not considered significant because none of the samples contained concentrations of zinc that exceed the screening level. Similarly, the presence of chromium in one method blank is not considered significant because chromium was not detected in any of the samples at concentrations above the screening level. The presence of lead in a number of the method blanks is not considered significant because none of the detections of lead in samples are at or slightly above the screening level such that small contributions from method blanks are likely to have increased reported concentrations significantly enough to change the findings of this report. None of the BTEX constituents were detected in the background soil vapor sample or the soil vapor method blank.

5 Conclusions

Based on review of current laboratory analytical results presented in this report for the Redwood Hill site, E & E START provides the following conclusions:

- Elevated concentrations of petroleum hydrocarbons are present in the vicinity of the former auto repair shop, canopy/dispensers and USTs (Figure 4). The petroleum hydrocarbons detected in soil at the site may pose an unacceptable risk to human health and the environment where concentrations exceed screening levels.
- An elevated concentration of benzene was detected in one sample at one sample location in the
 vicinity of the former USTs. Except for the single detection of benzene, concentrations of BTEX
 do no appear to pose an unacceptable risk to human health or the environment.
- Elevated concentrations of lead are present in surface and near-surface soil in areas peripheral to the former locations of two residential structures in the western portions of the site. Lead detected in shallow soil at the site may pose an unacceptable risk to human health and the environment where lead concentrations exceed screening levels.
- Concentrations of cadmium detected at the site are low, within the range of published background concentrations for the area, and do not show an obvious distribution pattern with respect to historical land use; thus, they likely represent natural occurrence.
- Where detected, concentrations of chromium, nickel, and zinc detected at the site are low and are not likely to pose an unacceptable risk to human health or the environment.
- Concentrations of BTEX in soil vapor are below respective screening levels, thus should not
 pose an unacceptable risk for exposure of future site worker and occupants as a result of vapor
 intrusion to proposed structures.

6 Recommendations

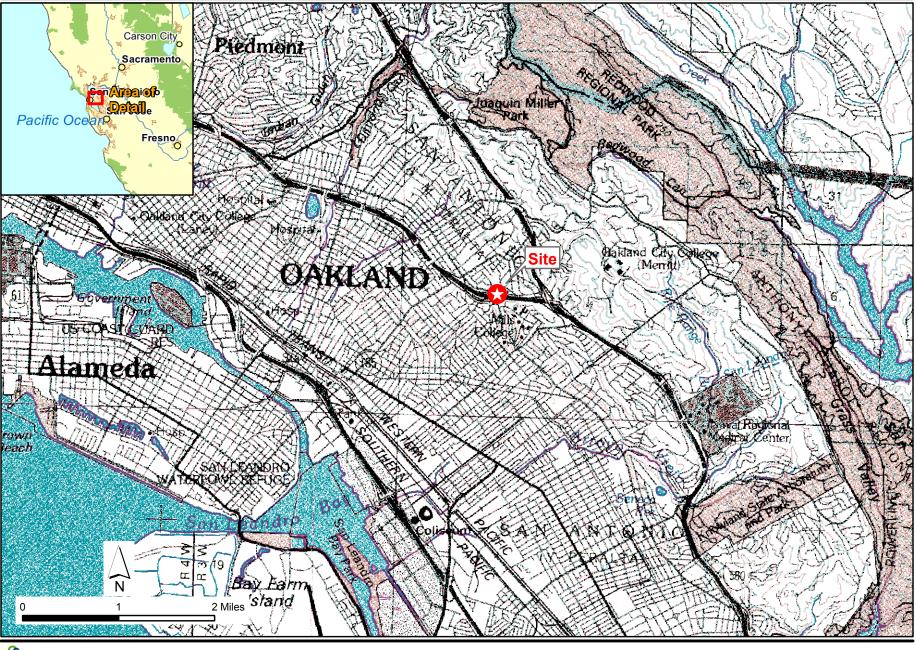
Based on review of current laboratory analytical results presented in this report for the Redwood Hill site, E & E START provides the following recommendations:

- Gasoline and motor oil contamination identified at boring locations RH-UST-08, RH-UST-09, RH-UST-10, RH-UST-16 and RH-UST-17, appears to be associated with the former USTs and pump islands on site. Contamination in the former UST area could be defined as an approximate 35 ft. x 45 ft. surface area, extending to at least 10 ft bgs (6 feet of clean overburden) with an approximate volume of 250 cubic yards. Contamination in the former pump island area could be defined as an approximate 40 ft. x 10 ft. surface area, extending to at least 10 ft bgs with an approximate volume of 150 cubic yards. Remediation may be required in these areas to remove the potential threat to human health or the environment from gasoline and motor oil contamination. Subsurface soil vapor results from this area indicate minimal vapor migration.
- Motor oil contamination identified at boring location RH-AR-20 appears to be associated with a hydraulic lift formerly used at the auto repair shop on site. Contamination in this area could be defined as an approximate 10 ft. X 10 ft. surface area, extending to a depth of approximately 10 feet bgs with an approximate volume of 40 cubic yards. Motor oil contamination identified at boring location RH-AR-24 appears to be associated with hazardous materials storage at the former auto repair shop on site. Contamination in this area could be defined as an approximate 10 ft. X 10 ft. surface area, extending to a depth of approximately 1 foot bgs with a total volume of approximately 4 cubic yards. Soil remediation may be required at these locations to remove the potential threat to human health or the environment from motor oil contamination.
- Lead impacted surface soils identified at boring locations RH-AAR-02, RH-LP-27, RH-LP-28, RH-LP-29, and RH-LP-30, appears to be associated with the two former residences in the western portion the site. Contamination in this area could be defined as an approximate 60 ft. X 75 ft. surface area, extending to a depth of approximately 1 foot bgs with a total volume of approximately 175 cubic yards. Soil remdiation may be required at these locations to remove the potential threat to human health or the environment from lead contamination.
- Further assessment of the extent of BTEX, TPHg, TPHd, TPHmo, cadmium, chromium, nickel, and zinc in soils should not be necessary.
- Further assessment of the extent of BTEX in soil vapor should not be necessary.

7 References

- ACC Environmental Consultants, Inc. (ACC). 2006a. "Phase I Environmental Site Assessment Update, 4868 Calaveras Avenue, Oakland, California." September.
 ————. 2006b. "Phase I Environmental Site Assessment Update, 4856 to 5862 Calaveras Avenue, Oakland, California." September.
 ————. 2006c. "Soil and Groundwater Management Plan, 4868 Calaveras Avenue, Oakland, California." August.
 ————. 2001. "Subsurface Investigation Report, 4868 Calaveras Avenue, Oakland, California." February.
 ————. 2000. "Phase I Environmental Site Assessment, 4868 Calaveras Avenue, Oakland, California." December.
- ACHCSA 1997. "Remedial Action Completion Certification, Former Exxon Station, 4868 Calaveras Avenue, Oakland, California." March.
- Environ International Corporation (Environ). 2008. "Phase I Environmental Site Assessment, 4856, 4862, and 4868 Calaveras Avenue, Oakland, California" October.
- Lawrence Berkeley National Laboratory (LBNL). 2009. "Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory, updated April 2009." April.

A Figures



ecology and environment, inc.

Figure 1
Vicinity Map
Habitat for Humanity East Bay
Redwood Hill
4856, 4862, and 4868 Calaveras Blvd,
Oakland, California 94619



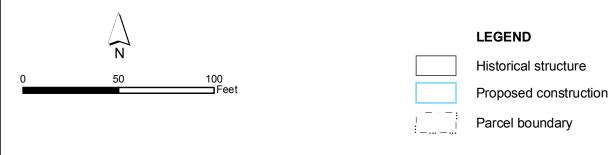
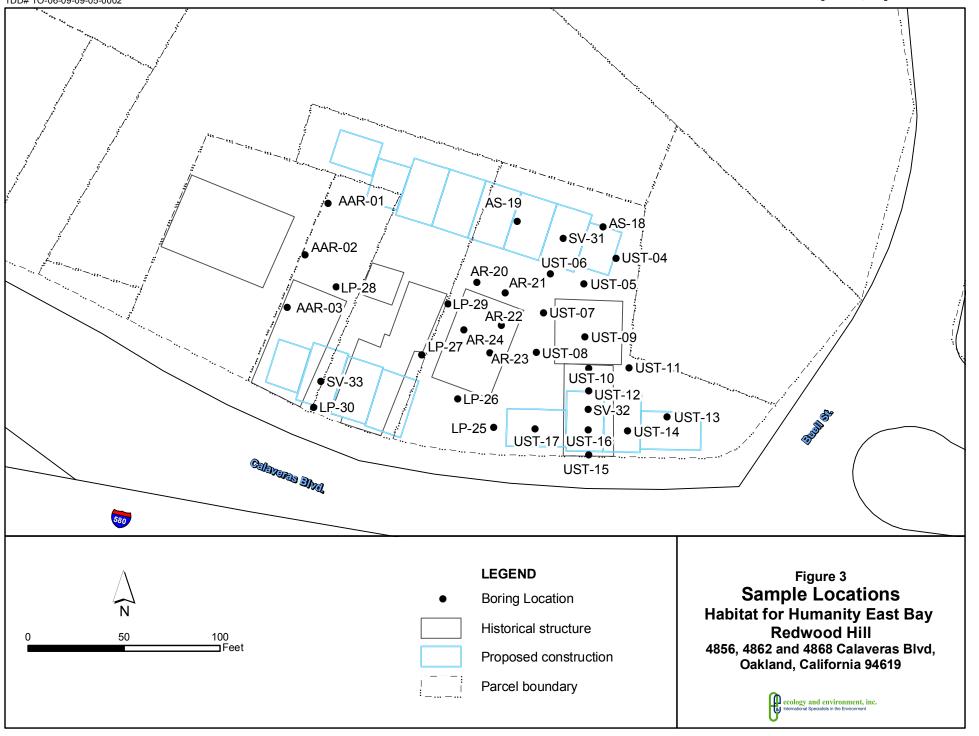
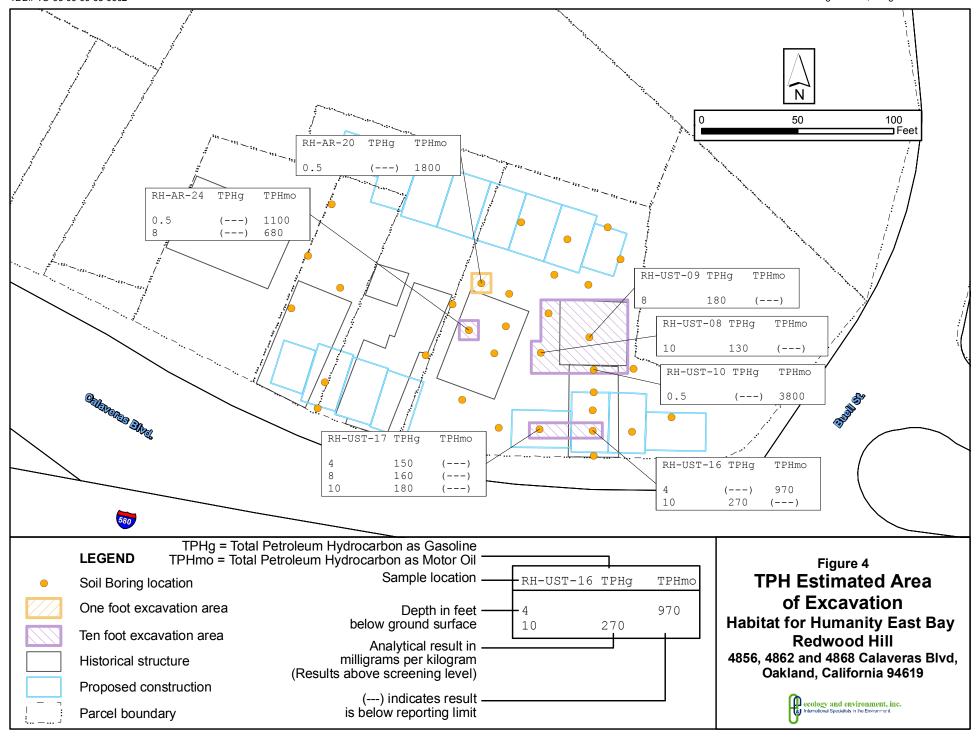
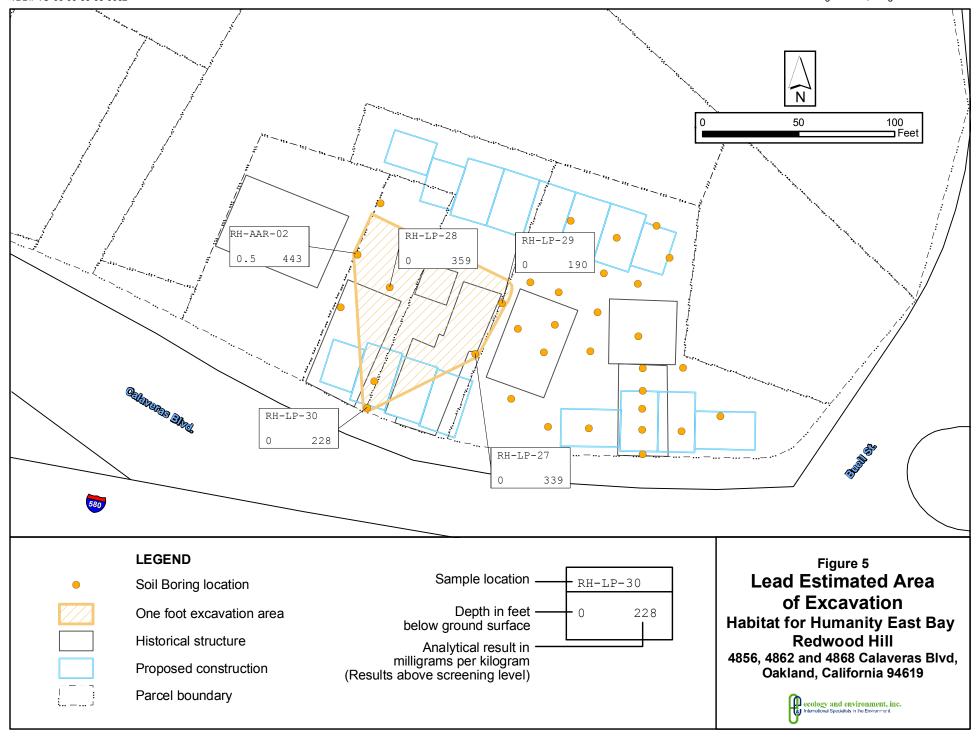


Figure 2
Site Map
Habitat for Humanity East Bay
Redwood Hill
4856, 4862, and 4868 Calaveras Blvd,
Oakland, California 94619









B Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/09/2009 By jamesy

Permit Numbers: W2009-0570

Permits Valid from 06/18/2009 to 06/26/2009

Application Id:

1244159601286

City of Project Site: Oakland

Site Location:

4856, 4862, and 4868 Calaveras Avenue

Completion Date:06/26/2009

Project Start Date: Assigned Inspector: 06/18/2009 Contact John Shouldice at (510) 670-5424 or johns@acpwa.org

Phone: 510-893-6700 x4804

Applicant:

Ecology & Environment - Paul Jones 1940 Webster Street, Suite 100, Oakland, CA 94612

Property Owner:

Hitesh Jadav

Phone: 510-251-6304

Habitat for Humanity EB, 2619 Broadway, 2nd Floor, Oakland, CA 94612

same as Property Owner *

Phone: --

Client: Contact:

Paul Jones

Cell: 415-238-3385

Total Due:

\$230.00

Receipt Number: WR2009-0212

Total Amount Paid:

\$230.00

Payer Name : Paul E. Jones

Paid By: MC

PAID IN FULL

Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 33 Boreholes

Boreholes

Driller: Paul Jones, P.G. 7352 - Lic #: 7352 - Method: DP

Work Total: \$230.00

Specifications

Permit

Issued Dt

Expire Dt

Max Depth

Hole Dlam

Number W2009-

0570

06/09/2009 09/16/2009 33

2.00 in.

10.00 ft

Specific Work Permit Conditions

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
- 4. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 5. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or

Alameda County Public Works Agency - Water Resources Well Permit

waterways or be allowed to move off the property where work is being completed.

- 6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- 7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
- 8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

C Boring Logs

E&E Ove	rburden Borehole Logging	Form	Location	n ID:	RH	-AAR	2-01
Client: Project:	U.S. EPA Habitat for Humanity EB Redwood Hill	_ Drilling Com	Date: 6/16/2009		=	Page:	1 of 1
Site/Area:	Adjacent Auto Repair		itor(s): Paul Jones				
Project No.	002693.6009.01BR		Type: Geoprobe 540)()			
Geologist:	Paul Jones	_ Drill Bit - Type		,			_
Signature:	1 441 0 0100		ethod: Direct Push N	Macrocore			
Start Time:	1445 Location Coordinate	ae l	Sample ID	Interval	Туре	Depth (Ft)	PID (ppm)
Top Depth:	Ft. Lat 37.7850002900		H-AAR-01-0.5	0.5'	S	(1 1)	(ррііі)
Bottom Depth:			H-AAR-01-2	2.0'	S		
Finish Time:	1510		H-AAR-01-4	4.0'	S		
Recovery: 1: _	N/A 2. N/A 3. N/A 4. N		1700001 4	4.0			
0 FT BGS					l .		
		1. (D	P			
Material: Color:	Natural Fill Uncertain (MUN) GSA Dark Brown	Intrument #1: Type:	Read	ding	-	0.5	1.5
Coloration:	UNI MTD VAR STN		EL MOD POR NA	•		0.5	1.5
		J					
Texture: GVL:		•	ON LOW MED H				
SND:			RY MST WET SA				
SLT:	11000 01/11		ON SLT MOD W				
CLY:		•		stiff	-	2.0	1.0
ORG: Observed:	<1 % STN SHN ODR PRD NA Other:	Opper Contact: SF	HP GRD DIF SME	NA			
Observed.	sandy gravelly silty CLAY with some roots	Color grades light	er with increasing d	enth to	-		
	medium brown at 4'. BOTTOM OF BORING	•	cr with increasing a	cpiii to			
4 FT BGS	1					4.0	1.3
Material:	Natural Fill Uncertain	Intrument #1: Type:	Rea	ding			ı
Color:	MUN GSA	Intrument #2: Type:		ding	-		
Coloration:	UNI MTD VAR STN	• • •	EL MOD POR NA	9			
Texture: GVL:	% ANG SUB RND NA	•	ON LOW MED HG	H NA			
SND:	% ANG SUB RND NA	Moisture: DF	RY MST WET SAT	ΓNA			
SLT:			ON SLT MOD WE	L NA			
CLY:		o .	DC / COH		_		
ORG:	STN SHN ODR PRD NA Other:	Upper Contact: SF	HP GRD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:				-		
	1						
Material:	Natural Fill Uncertain	Intrument #1: Type:	Pea	ding			i
Color:	MUN GSA	Intrument #2: Type:		ding	-		
Coloration:	UNI MTD VAR STN	• • •	EL MOD POR NA	g	•		
Texture: GVL:	% ANG SUB RND NA	•	ON LOW MED HG	H NA			
SND:	% ANG SUB RND NA	Moisture: DF	RY MST WET SAT	ΓNA			
SLT:		Cementation: NC	ON SLT MOD WE	L NA			
CLY:		•	DC / COH		_		
ORG:		Upper Contact: SF	HP GRD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:				-		
	1						
Motoriol	Notional Fill Upportoin	Intrument #1. To	D	dina	-		H
Material: Color:	Natural Fill Uncertain MUN GSA	Intrument #1: Type: Intrument #2: Type:		ding ding	-		
Coloration:	UNI MTD VAR STN	• • •	EL MOD POR NA	•	•		
Texture: GVL:	% ANG SUB RND NA	•	ON LOW MED HE				
SND:		•	RY MST WET SAT				
SLT:			ON SLT MOD WE				
CLY:		Strength: NC	DC / COH		_		
ORG:		Upper Contact: SH	IP GRD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:				-		

E&E Ove	rburden Borehole Logging	Form Location ID: R	H-AAR-02
Client:	U.S. EPA Habitat for Humanity EB Redwood Hill	Date: 6/16/2009	Page: <u>1 of 1</u>
Project: Site/Area:	Adjacent Auto Repair	Drilling Company: Operator(s): Paul Jones	
Project No.	002693.6009.01BR	Rig/Type: Geoprobe 5400	
Geologist:	Paul Jones	Drill Bit - Type/Size:	
Signature:	1 aut Jones	Sample Method: Direct Push Macrocore	
o.g. a.a.		<u> </u>	
Ctart Time:	1600 Location Coordinate	es Sample ID Interval Typ	Depth PID
Start Time: Top Depth:	1600 Location Coordinate Ft. Lat 37.7849260471	es Sample ID Interval Typ RH-AAR-02-0.5 0.5' S	pe (Ft) (ppm)
Bottom Depth:			
Finish Time:	1650	RH-AAR-02-2 2.0' S	
Recovery: 1: _			
0 FT BGS		11177 111 02 4 4.0 0	
		Interpretable Trans.	╃┼┼┼
Material: Color:	Natural Fill Uncertain MUN GSA Medium Brown	Intrument #1: Type: Reading Intrument #2: Type: Reading	0.5 1.0
	UNI MTD VAR STN		0.5
Coloration:		Sorting: WEL MOD POR NA Plasticity: NON LOW MED HGH NA	
Texture: GVL:		•	
SND:	 '' 	Moisture: DRY MST WET SAT NA	
SLT:		Cementation: NON SLT MOD WEL NA	
CLY:		Strength: NOC / COH stiff	2.0 1.2
ORG: Observed:	<pre><1 % STN SHN ODR PRD NA Other:</pre>	Upper Contact: SHP GRD DIF SME NA	
Observed.		s. Grades low to high placticity at 4' with increasing	
	moisture content. BOTTOM OF BORING 4		
4 FT BGS			4.0 1.5
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading	
Color:	MUN GSA	Intrument #2: Type: Reading	
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA	
Texture: GVL:	% ANG SUB RND NA	Plasticity: NON LOW MED HGH NA	
SND:	% ANG SUB RND NA	Moisture: DRY MST WET SAT NA	
SLT:		Cementation: NON SLT MOD WEL NA	
CLY:		Strength: NOC / COH	
ORG:	STN SHN ODR PRD NA Other:	Upper Contact: SHP GRD DIF SME NA	
Observed:	STN SHN ODR PRD NA Other:		
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading	-
Color:	MUN GSA	Intrument #2: Type: Reading	
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA	
Texture: GVL:	%ANG SUB RND NA	Plasticity: NON LOW MED HGH NA	
SND:		Moisture: DRY MST WET SAT NA	
SLT:		Cementation: NON SLT MOD WEL NA	
CLY: ORG:		Strength: NOC / COH Upper Contact: SHP GRD DIF SME NA	
Observed:	STN SHN ODR PRD NA Other:	opper contact. SHF GRD DIF SIME INA	
Observed.	OTH OTHE ODER THE THE OTHER.		
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading	-
Color:	MUN GSA	Intrument #2: Type: Reading	
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA	
Texture: GVL:	%ANG SUB RND NA	Plasticity: NON LOW MED HGH NA	
SND:		Moisture: DRY MST WET SAT NA	
SLT:		Cementation: NON SLT MOD WEL NA	
CLY: ORG:		Strength: NOC / COH Upper Contact: SHP GRD DIF SME NA	
Observed:	STN SHN ODR PRD NA Other:	Oppor Contact. On a City Dir Civil 144	
	_		

E&E Ove	rburden Borehole Logging	Form Location ID:	RH-AAR-03
Client: Project: Site/Area: Project No. Geologist: Signature:	U.S. EPA Habitat for Humanity EB Redwood Hill Adjacent Auto Repair 002693.6009.01BR Paul Jones	Date: 6/16/2009 Drilling Company: Operator(s): Paul Jones Rig/Type: Geoprobe 5400 Drill Bit - Type/Size: Sample Method: Direct Push Macroco	Page: <u>1 of 1</u>
Start Time: Top Depth: Bottom Depth: Finish Time: Recovery: 1: _	1750 N/A 2. N/A 3. N/A 4. N Natural Fill Uncertain (MUD) GSA Medium Brown UNI MTD VAR STN 15 % ANG SUB RND NA 10 % ANG SUB RND NA 25 % 50 % USCS SYM: CL	RH-AAR-03-0.5 00 RH-AAR-03-2 22 RH-AAR-03-4 44 Intrument #1: Type: Reading Intrument #2: Type: Reading Sorting: WEL MOD POR NA Plasticity: NON LOW MED HGH NA Moisture: DRY MST WET SAT NA Cementation: NON SLT MOD WEL NA Strength: NOC / COH very still Upper Contact: SHP GRD DIF SME NA	A
4 FT BGS Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA	Intrument #1: Type: Reading Reading Reading Sorting: WEL MOD POR NA Plasticity: NON LOW MED HGH NA Moisture: DRY MST WET SAT NA Cementation: NON SLT MOD WEL NA Strength: NOC / COH Upper Contact: SHP GRD DIF SME NA	
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	% USCS SYM:	Intrument #1: Type: Reading	
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	% USCS SYM:	Intrument #1: Type: Reading	

E&E Ove	erburden Borehole Logging	g Form	Location	ID: F	RH-L	JST	-04
Client:	U.S. EPA	Date	e: 6/17/2009		F	Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill	Drilling Company				J	
Site/Area:	Underground Storage Tank System	Operator(s)					
Project No.	002693.6009.01BR		Geoprobe 5400				
Geologist:	Paul Jones	_ Drill Bit - Type/Size					
Signature:		Sample Method	: Direct Push Ma	crocore			
						epth	PID
Start Time:	1100 Location Coordinat		ample ID			(Ft)	(ppm)
Top Depth:	Ft. Lat 37.7849294984		T-04-0.5		3		
Bottom Depth:					3		
Finish Time:	1215 N/A	I/A RH-US			S		
recovery. 1	<u> 19/A</u> 2. <u>19/A</u> 3. <u>19/A</u> 4. <u>1</u>		T-04-10		<u>s</u>		
0 FT BGS	7	1 00		10.0			
Material:	Natural Fill Uncertain	Intrument #1: Type:	Readir	ng .	-		
Color:	(MUN) GSA Brown to Reddish Brown	Intrument #2: Type:		ng			
Coloration:	UNI MTD VAR STN	• •	IOD POR NA	J			
Texture: GVL:	40 % ANG SUB RND NA	•	LOW MED HGH	H NA			
SND	: 40 % ANG SUB RND NA	Moisture: DRY N	IST WET SAT	NA			
SLT		Cementation: NON	SLT MOD WEL	. NA			
CLY	: 10 % USCS SYM: GC	Strength: NOC / C	OH ve	ry stiff			
ORG		Upper Contact: SHP G	RD DIF SME 1	NA			
Observed:	STN SHN ODR PRD NA Other:						
	sandy silty clayey GRAVEL. BOTTOM OF	BORING 10.0					
10 FT BGS	5						
Material:	Natural Fill Uncertain	Intrument #1: Type:	Readir	ng			
Color:	MUN GSA	Intrument #2: Type:		ng			
Coloration:	UNI MTD VAR STN	0	IOD POR NA				
Texture: GVL: SND:		•	OW MED HGH ST WET SAT				
SLT			LT MOD WEL				
CLY		Strength: NOC / C					
ORG		Upper Contact: SHP G	RD DIF SME 1	NA			
Observed:	STN SHN ODR PRD NA Other:						
Material:	Natural Fill Uncertain	Intrument #1: Type:	Readir	ng			
Color:	MUN GSA	Intrument #2: Type:	Readin	ng			
Coloration:	UNI MTD VAR STN	3	IOD POR NA	NIA			
Texture: GVL: SND:		•	OW MED HGH ST WET SAT				
SLT			LT MOD WEL				
CLY		Strength: NOC / C	ОН				
ORG		Upper Contact: SHP G	RD DIF SME I	AV			
Observed:	STN SHN ODR PRD NA Other:						
Material:	Natural Fill Uncertain	Intrument #1: Type:		·			
Color:	MUN GSA	Intrument #2: Type:		ng			
Coloration:	UNI MTD VAR STN	•	OW MED HOL	NIA			
Texture: GVL: SND:		•	OW MED HGH ST WET SAT				
SLT			LT MOD WEL				
CLY		Strength: NOC / C					
ORG		Upper Contact: SHP G	RD DIF SME N	NA AV			
Observed:	STN SHN ODR PRD NA Other:						
					_		

E&E Ove	erburden Borehole Loggin	g Form	Location	n ID:	RH-UST-05
Client: Project:	U.S. EPA Habitat for Humanity EB Redwood Hill	_ Drilling Co	Date: 6/18/2009 mpany:		Page: <u>1 of 1</u>
Site/Area:	Underground Storage Tank System	_	ator(s): Paul Jones		
Project No.	002693.6009.01BR		g/Type: Geoprobe 54	00	
Geologist:	Paul Jones	Drill Bit - Typ	pe/Size:		
Signature:		Sample N	Method: Direct Push N	Macrocore	
					Depth PID
Start Time:	815 Location Coordinat	es	Sample ID	Interval	Type (Ft) (ppm)
Top Depth:	Ft. Lat 37.7848920666	F	RH-UST-05-0.5	0.5'	S
Bottom Depth	: 10 Ft. Long -122.187854368	00 F	RH-UST-1005-2	0.5'	S
Finish Time:	900		RH-UST-05-2	2.0'	S
Recovery: 1:	<u>N/A</u> 2. <u>N/A</u> 3. <u>N/A</u> 4		RH-UST-05-4	4.0'	S
		<u> </u>	RH-UST-05-8	8.0'	S
0 FT D00	7	<u>[</u>	RH-UST-05-10	10.0'	S
0 FT BGS					
Material:	Natural Fill Uncertain	Intrument #1: Typ		ading	
Color: Coloration:	MUN GSA Dark Gray UNI MTD VAR STN	Intrument #2: Typ	ve: kea VEL MOD POR N	ading	-
Texture: GVL:		J	VON LOW MED H		
SND:		•	DRY MST WET SA		
SLT			NON SLT MOD W		
CLY	11000 01/44			very stiff	
ORG		3	SHP GRD DIF SME		-
Observed:	STN SHN ODR PRD NA Other:				_
	sandy, silty, clayey GRAVEL. Grades yell	owish brown 3.5'	- 10'. Grades with app	rox. 20% total	_
10 == 0.00	fines 6' - 10'. BOTTOM OF BORING 10.0'				
10 FT BGS					
Material:	Natural Fill Uncertain			ading	
Color: Coloration:	MUN GSA UNI MTD VAR STN	Intrument #2: Typ Sorting: V	ve: kea VEL MOD POR NA	ading	-
Texture: GVL:		•	NON LOW MED HO		
SND		•	DRY MST WET SA		
SLT			NON SLT MOD WE	L NA	
CLY		J	NOC / COH	. NIA	-
ORG: Observed:	:% STN_SHN_ODR_PRD_NA_Other:	Opper Contact: 8	SHP GRD DIF SME	NA	
Obcolved.	OH OH OEK THE THE OHOL				-
	_				
Material:	Natural Fill Uncertain	Intrument #1: Typ	oe: Rea	ading	
Color:	MUN GSA	Intrument #2: Typ	oe: Rea	ading	_
Coloration:	UNI MTD VAR STN	0	VEL MOD POR NA		
Texture: GVL: SND:		,	NON LOW MED HO DRY MST WET SA		
SLT			NON SLT MOD WE		
CLY			NOC / COH		_
ORG		Upper Contact: S	SHP GRD DIF SME	NA	_
Observed:	STN SHN ODR PRD NA Other:				-
	1				
Material:	Natural Fill Uncertain	Intrument #1: Typ	ne. Po	ading	
Color:	MUN GSA	Intrument #2: Typ		ading	_
Coloration:	UNI MTD VAR STN	,,	WEL MOD POR NA	0	_
Texture: GVL:		,	NON LOW MED HO		
SND:			DRY MST WET SA		
SLT: CLY:			NON SLT MOD WE NOC/COH	L INA	
ORG	· /0	•	SHP GRD DIF SME	NA	-
Observed:	STN SHN ODR PRD NA Other:				_
	•				

E&E Ove	erburden Borehole Logging	g Form	Location	ID:	RH	-US1	-06
Client:	U.S. EPA	Date	e: 6/18/2009			Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill	 Drilling Company 				J	
Site/Area:	Underground Storage Tank System		: Paul Jones				
Project No.	002693.6009.01BR	Rig/Type	Geoprobe 5400)			
Geologist:	Paul Jones	Drill Bit - Type/Size					
Signature:		Sample Method	Direct Push M	acrocore			
						Depth	DID
Start Time:	1045 Location Coordinate	es Sa	ample ID	Interval	Туре	(Ft)	(ppm)
Top Depth:	Ft. Lat 37.7849059343		T-06-0.5	0.5'	S	(* -/	(FF)
Bottom Depth:				2.0'	S		
Finish Time:	1145	RH-US	T-06-4	4.0'	S		
Recovery: 1: _				8.0'	S		
		RH-US	T-06-10	10.0'	S		
	_						
0 FT BGS			•				
Material:	Natural Fill Uncertain	Intrument #1: Type:	Read	ding			
	(MUN) GSA Dark Gray	Intrument #2: Type:		ling			
Coloration:	UNI MTD VAR STN	• • • • • • • • • • • • • • • • • • • •	OD POR NA				
Texture: GVL:		•	LOW MED HO				
SND:		•	IST WET SAT	Γ ΝΑ			
SLT:			SLT MOD WE				
CLY:		Strength: NOC / C		rm			
ORG:	 %	Upper Contact: SHP G	RD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:						
	gravelly, silty, clayey SAND. BOTTOM OF	BORING 10.0'					
	•						
10 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: Type:	Read	ding	_		
Color:	MUN GSA	Intrument #2: Type:		ling	_		
Coloration:	UNI MTD VAR STN	•	MOD POR NA	1 110			
Texture: GVL: SND:	MANG SUB RND NA ANG SUB RND NA	•	OW MED HGH IST WET SAT				
SLT:			SLT MOD WEL				
CLY:		Strength: NOC / C					
ORG:	<u></u> %	Upper Contact: SHP G	RD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:						
	1						
Material:	Natural Fill Uncertain	Intrument #1: Type:		<u> </u>	_		
Color:	MUN GSA	Intrument #2: Type:		ling	-		
Coloration: Texture: GVL:	UNI MTD VAR STN % ANG SUB RND NA	•	10D POR NA .OW MED HGH	-l ΝΔ			
SND:		,	IST WET SAT				
SLT:			SLT MOD WEL				
CLY:		Strength: NOC / C	OH				
ORG:		Upper Contact: SHP G	RD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:						
	1						
			_				
Material:	Natural Fill Uncertain	Intrument #1: Type:	· · · · · · · · · · · · · · · · · · ·	ding	_		
Coloration:	MUN GSA	Intrument #2: Type:		ling	-		
Coloration: Texture: GVL:	UNI MTD VAR STN % ANG SUB RND NA	•	MOD POR NA .OW MED HGH	H NA			
SND:		•	IST WET SAT				
SLT:			SLT MOD WEL				
CLY:	% USCS SYM:	Strength: NOC / C					
ORG:		Upper Contact: SHP G	RD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:						
	1						

E&E Ove	erburden Borehole Logging	Form	Location	ID:	RH	-UST	-07
Client:	U.S. EPA	Date	: 6/18/2009			Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill	Drilling Company	r:				
Site/Area:	Underground Storage Tank System	Operator(s)					
Project No.	002693.6009.01BR		: Geoprobe 5400				
Geologist: Signature:	Paul Jones	_ Drill Bit - Type/Size	: Direct Push Mac	crocore			
oignature.		- Campio Motiloa	. Direct i usii ivia	crocore			
Start Time:	908 Location Coordinate		ample ID	Interval -	Type	Depth (Ft)	PID (nnm)
Top Depth:	Ft. Lat 37.7848498730		T-07-0.5	0.5'	Type S	(Ft)	(ppm)
Bottom Depth:	i i		T-1007-0.5	0.5'	S		
Finish Time:	1030	RH-US	Г-07-2	2.0'	S		
Recovery: 1: _	N/A 2. N/A 3. N/A 4. N/	A RH-US	Г-07-4	4.0'	S		
		RH-US		8.0'	S		
f	•	RH-US	Т-07-10	10.0'	S		
0 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: Type:		9			
Color: Coloration:	MUN GSA Medium Brown UNI MTD VAR STN	Intrument #2: Type:	Readin	g			
Texture: GVL:		•	OU POR NA OW MED HGH	ı NIA			
SND		,	IST WET SAT				
SLT			SLT MOD WEL				
CLY		Strength: NOC / C		ry stiff			
ORG		Upper Contact: SHP GI					
Observed:	STN SHN ODR PRD NA Other:						
	silty, sandy, gravelly CLAY.						
6.5 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: Type:	Readin	g			
Color:	MUN GSA Olive	Intrument #2: Type:	Readin	g			
Coloration:	UNI MTD VAR STN	Sorting: WEL M	OD POR NA				
Texture: GVL:		•	LOW MED HGF				
SND			IST WET SAT				
SLT			SLT MOD WEL				
CLY ORG		Strength: NOC / Country Countr		NA			
Observed:	STN SHN ODR PRD NA Other:	oppor contact.	SILD BII OINE				
	clayey gravelly SAND with some silt. Obvio	ous staining and mild petro	oleum odor noted	l 6.5' - 7'			
7.0 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: Type:	Readin	g			
Color:	MUN GSA Olive	Intrument #2: Type:		9			
Coloration:	UNI MTD VAR STN	3	OD POR NA				
Texture: GVL:			OW MED HGH				
SND			IST WET SAT				
SLT CLY		Cementation: NON Strength: NOC / C	SLT MOD WEL OH ve	NA ry stiff			
ORG		Upper Contact: SHP (
Observed:	STN SHN ODR PRD NA Other:						
	silty, sandy, gravelly CLAY with obvious st	•	odor. Grades ligh	nter in color			
40 FT 5 C 5	to olive brown 8' - 10'. BOTTOM OF BORIN	G 10.0'					
10 FT BGS		=	-				
Material: Color:	Natural Fill Uncertain	Intrument #1: Type:		9			
Color:	MUN GSA UNI MTD VAR STN	Intrument #2: Type: Sorting: WEL M	Readin	9			
Texture: GVL:	% ANG SUB RND NA	•	OW MED HGH	NA			
SND			ST WET SAT				
SLT			LT MOD WEL	NA			
CLY ORG	· ′°	Strength: NOC / Country Upper Contact: SHP GI		JA			
Observed:	STN SHN ODR PRD NA Other:	-pps. comac. om of	In OME I				
T-	•						

E&E Ove	rburden Borehole Logging	Form	Locatio	n ID:	RH	-UST	-08
Client: Project: Site/Area: Project No. Geologist: Signature:	U.S. EPA Habitat for Humanity EB Redwood Hill Underground Storage Tank System 002693.6009.01BR Paul Jones	Ri Drill Bit - Typ	rator(s): Paul Jones g/Type: Geoprobe 54	00		Page:	1 of 1
						Depth	PID
	1730 N/A 2. N/A 3. N/A 4. N	000 F F I/A F	Sample ID RH-UST-08-0.5 RH-UST-08-2 RH-UST-08-4 RH-UST-08-8 RH-UST-08-10	Interval 0.5' 2.0' 4.0' 8.0' 10.0'	Type S S S S S	(Ft)	(ppm)
0 FT BGS			-			<u> </u>	
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	15 % ANG SUB RND NA 25 % 50 % USCS SYM: CL	Plasticity: Noisture: Cementation: Strength: Noisture: Noisture: Cementation: Noisture: Noisture		IGH NA AT NA /EL NA very stiff	- -		
5.0 FT BGS							
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	40 % ANG SUB RND NA 15 % 20 % USCS SYM: SC	Intrument #2: Typ Sorting: Plasticity: Moisture: Cementation: Strength: Upper Contact:	REI REI WEL MOD POR N NON LOW MED H DRY MST WET S NON SLT MOD W NOC/COH SHP GRD DIF SM	HGH NA AT NA /EL NA firm IE NA	- -		
	- Sinty, clayey, gravery CAND. Obvious Stair	iiig and iiiid peti (Siedili Odol Hoted 5 -	,			
Coloration: Texture: GVL: SND: SLT: CLY: ORG:	Natural Fill Uncertain MUD GSA Olive Brown UNI MTD VAR STN 5 % ANG SUB RND NA 75 % ANG SUB RND NA 5 % ANG SUB RND NA 5 % USCS SYM: SC % W W W SC	Sorting: V Plasticity: Moisture: Cementation: Strength: V	e:Rei e:Rei WEL MOD POR N NON LOW MED H DRY MST WET S NON SLT MOD W NOC/COH SHP GRD DIF SM	IA HGH NA AT NA /EL NA very stiff	-		
Observed:	STN SHN ODR PRD NA Other: clayey SAND with some gravel and silt. Of	bvious staining an	d strong petroleum o	dor noted.			
9.0 FT BGS	1						
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG:	Natural Fill Uncertain MUD GSA Olive Brown UNI MTD VAR STN %ANG SUB RND NA 10 %ANG SUB RND NA 20 % 70 % USCS SYM: CL%	Intrument #2: Typ Sorting: V Plasticity: N Moisture: E Cementation: N Strength: N		GH NA AT NA /EL NA stiff			
Observed:	STN SHN ODR PRD NA Other: sandy, silty CLAY with obvious staining at	nd strong petroleu	m odor. BOTTOM OF	BORING 10.0'			

E&E Ove	erburden Borehole Logging	Form	Location ID:	RH-UST-09
Client: Project: Site/Area: Project No. Geologist: Signature:	U.S. EPA Habitat for Humanity EB Redwood Hill Underground Storage Tank System 002693.6009.01BR Paul Jones	Op Drill Bit - T	Date: 6/19/2009 Company: erator(s): Paul Jones Rig/Type: Geoprobe 5400 ype/Size: e Method: Direct Push Macrocore	Page: <u>1 of 1</u>
Start Time: Top Depth: Bottom Depth: Finish Time: Recovery: 1: _ 0 FT BGS Material:	910 N/A 2. N/A 3. N/A 4. N/A	00 A	Sample ID Interval RH-UST-09-0.5 0.5' RH-UST-1009-0.5 0.5' RH-UST-09-2 2.0' RH-UST-09-4 4.0' RH-UST-09-8 8.0' RH-UST-09-10 10.0'	Type S S S S S S S S S S S S S S S S S S S
Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	5 % 15 % USCS SYM: GC % STN SHN ODR PRD NA Other: Clayey gravelly SAND with some silt	Sorting: Plasticity: Moisture: Cementation: Strength:	WEL MOD POR NA NON LOW MED HGH NA DRY MST WET SAT NA NON SLT MOD WEL NA NOC/COH Firm SHP GRD DIF SME NA	- - -
3.5 FT BGS Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUD GSA I grayish brown UNI MTD VAR STN 5 % ANG SUB RND NA 85 % ANG SUB RND NA 5 % SUB SUB RND NA	Intrument #2: Ty Sorting: Plasticity: Moisture: Cementation: Strength: Upper Contact:	WEL MOD POR NA NON LOW MED HGH NA DRY MST WET SAT NA NON SLT MOD WEL NA NOC/COH Firm SHP GRD DIF SME NA	
10 FT BGS Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA UNI MTD VAR STN ANG SUB RND NA ANG SUB RND NA ANG SUB RND NA W USCS SYM:	Intrument #1: Ty Intrument #2: Ty Sorting: Plasticity: Moisture: Cementation: Strength:		-
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG:	% USCS SYM:	Intrument #2: Ty Sorting: Plasticity: Moisture: Cementation: Strength:	ype:Reading ype:Reading WEL MOD POR NA NON LOW MED HGH NA DRY MST WET SAT NA NON SLT MOD WEL NA NOC / COH SHP GRD DIF SME NA	

E&E Ove	erburden Borehole Loggin	g Form	Location ID:	RH-UST-10
Client: Project: Site/Area:	U.S. EPA Habitat for Humanity EB Redwood Hill Underground Storage Tank System	Op	Date: 6/19/2009 Company: erator(s): Paul Jones	Page: <u>1 of 1</u>
Project No.	002693.6009.01BR		Rig/Type: Geoprobe 5400	
Geologist: Signature:	Paul Jones	Drill Bit - T	ype/Size:	<u> </u>
Oignataro.			5 Mourous Breet 1 ash Macrocore	
Start Time: Top Depth: Bottom Depth	0930 Location Coordina Ft. Lat 37.7847709413 10 Ft. Long -122.187842502		Sample ID Interv RH-UST-10-0.5 0.5' RH-UST-10-2 2.0'	S
Finish Time:	1015		RH-UST-10-4 4.0'	
Recovery: 1: _	N/A 2. N/A 3. N/A 4.	N/A	RH-UST-10-8 8.0'	
0 FT B00	1		RH-UST-10-10 10.0)' S
0 FT BGS		Int	Dan dia s	
Material: Color:	Natural Fill Uncertain (MUN) GSA Dark Brown	Intrument #1: 1	Type: Reading Type: Reading	
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA	
Texture: GVL:	5 %ANG SUB RND NA	Plasticity:	NON LOW MED HGH NA	
SND:	10 % ANG SUB RND NA	Moisture:	DRY MST WET SAT NA	
SLT:		Cementation:	NON SLT MOD WEL NA	
CLY: ORG:		Strength:	NOC / COH Very Stiff SHP GRD DIF SME NA	
Observed:	STN SHN ODR PRD NA Other:	Opper Contact.	SHP GRD DIF SWE NA	
	sandy silty CLAY with some gravel			
6.0 FT BGS	1			
Material:	Natural Fill Uncertain	Intrument #1: 7	ype:Reading	
Color:	MUN GSA Grayish Brown	Intrument #2: 1	ype: Reading	
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA	
Texture: GVL: SND:		Plasticity: Moisture:	NON LOW MED HGH NA DRY MST WET SAT NA	
SIND.		Cementation:	NON SLT MOD WEL NA	
CLY:		Strength:	NOC / COH Firm	
ORG:		Upper Contact:	SHP GRD DIF SME NA	
Observed:	STN SHN ODR PRD NA Other: silty clayey gravelly SAND			
	_			
8.5 FT BGS				
Material:	Natural Fill Uncertain		ype: Reading	
	MUN GSA Yellowish Brown UNI MTD VAR STN		ype: Reading WEL MOD POR NA	
Coloration: Texture: GVL:		Sorting: Plasticity:	NON LOW MED HGH NA	
SND:		Moisture:	DRY MST WET SAT NA	
SLT:	35 %	Cementation:	NON SLT MOD WEL NA	
CLY:		Strength:	NOC / COH very stiff	
ORG: Observed:	STN SHN ODR PRD NA Other:	Opper Contact:	SHP GRD DIF SME NA	
	sandy silty CLAY with some gravel. BOT	TOM OF BORIN	G 10.0'	
10.0 ET BCC	1			
10.0 FT BGS Material:	Natural Fill Uncertain	Intrument #1.7	ype:Reading	
Color:	MUN GSA		ype:Reading rype: Reading	
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA	
Texture: GVL:	ANG SUB RND NA	Plasticity:	NON LOW MED HGH NA	
SND: SLT:		Moisture: Cementation:	DRY MST WET SAT NA NON SLT MOD WEL NA	
CLY:	% USCS SYM:	Strength:	NOC / COH	
ORG:		Upper Contact:	SHP GRD DIF SME NA	
Observed:	STN SHN ODR PRD NA Other:			

E&E Ove	erburden Borehole Logging	Form	Location ID	: RH	I-UST-11
Client:	U.S. EPA	D	ate: 6/18/2009		Page: <u>1 of 1</u>
Project:	Habitat for Humanity EB Redwood Hill	_ Drilling Compa			. age. <u>. e</u>
Site/Area:	Underground Storage Tank System		(s): Paul Jones		
Project No.	002693.6009.01BR		/pe: Geoprobe 5400		
Geologist:	Paul Jones	Drill Bit - Type/S			
Signature:		Sample Meth	od: Direct Push Macroo	core	
					Depth PID
Start Time:	1145 Location Coordinate	es	Sample ID In	terval Type	(Ft) (ppm)
Top Depth:	Ft. Lat 37.7847730871			0.5' S	(1.1) (FF111)
Bottom Depth				0.5' S	
Finish Time:	1245			2.0' S	
Recovery: 1: _	N/A 2. N/A 3. N/A 4. N/A	<u>A</u> RH-l	JST-11-4	4.0' S	
		RH-l	JST-11-8	8.0' S	
	_	RH-l	JST-11-10	10.0' S	
0 FT BGS	;				
Material:	Natural Fill Uncertain	Intrument #1: Type:	Reading _		
Color:	(MUN) GSA I Light Brown	Intrument #2: Type:			
Coloration:	UNI MTD VAR STN		MOD POR NA		
Texture: GVL:	65 % ANG SUB RND NA		LOW MED HGH N	IA.	
SND	= 20 % ANG SUB RND NA	Moisture: DRY	MST WET SAT NA	A	
SLT	5 %	Cementation: NO	SLT MOD WEL N	A	
CLY	: 10 % USCS SYM: GC	Strength: NOC	/ COH loose		
ORG:	%	Upper Contact: SHP	GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other:				
	Gravel Fill				
1.0 FT BGS					
Material:	Natural Fill Uncertain	Intrument #1: Type:	Reading		
Color:	MUN GSA Dark Brown	Intrument #2: Type:	Reading _		
Coloration:	UNI MTD VAR STN	Sorting: WEL	MOD POR NA		
Texture: GVL:	ANG SUB RND NA	Plasticity: NON	LOW MED HGH N	IA	
SND	: 15 % ANG SUB RND NA	Moisture: DRY	MST WET SAT NA	Ą	
SLT		Cementation: NON	SLT MOD WEL N	A	
CLY	: 60 % USCS SYM: CL	•	/ COH stiff		
ORG:		Upper Contact: SHF	GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other:				
	gravelly sandy silty CLAY				
5.0 FT BGS	7				
	Natural Fill Uncertain	Intrument #1: Type:	Reading		
Material: Color:	MUN GSA I Yellowish Brown	Intrument #2: Type:			
Coloration:	UNI MTD VAR STN		MOD POR NA		
Texture: GVL:	25 % ANG SUB RND NA	· ·	LOW MED HGH NA	A	
SND		•	MST WET SAT NA		
SLT			SLT MOD WEL NA		
CLY		Strength: NOC	/ COH very s	tiff	
ORG:		Upper Contact: SHP	GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other: sandy gravelly silty CLAY. BOTTOM OF B	DRING 10 0'			
	Sandy graveny Siny CLAT. BUTTOW UP B	JAMES 10.0			
10.0 FT BGS	7				
Material:	Natural Fill Uncertain	Intrument #1: Type:	Reading		<u> </u>
Color:	MUN GSA	Intrument #2: Type:			
Coloration:	UNI MTD VAR STN	· · ·	MOD POR NA		
Texture: GVL:	%ANG SUB RND NA	•	LOW MED HGH NA	A	
SND			MST WET SAT NA		
SLT			SLT MOD WEL NA		
CLY: ORG:		•	COH GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other:	opper contact. SHP	OND DII SWE NA		
	_				

E&E Ove	erburden Borehole Logging	g Form	Location ID:	RH	<u>-UST-12</u>
Client:	U.S. EPA	Date	e: 6/19/2009		Page: 1 of 1
Project:	Habitat for Humanity EB Redwood Hill	Drilling Company			
Site/Area:	Underground Storage Tank System	Operator(s): Paul Jones		
Project No.	002693.6009.01BR		Geoprobe 5400		
Geologist:	Paul Jones	_ Drill Bit - Type/Size			
Signature:		_ Sample Method	d: Direct Push Macrocore		
O	1000				Depth PID
Start Time:	1030 Location Coordinate Ft. Lat 37.7847386807		ample ID Interval T-12-0.5 0.5'	Туре	(Ft) (ppm)
Top Depth: Bottom Depth:				S	
Finish Time:	1130	RH-US		S	
Recovery: 1: _				S	
, -			T-12-10 10.0'	S	
0 FT BGS					
Material:	Natural Fill Uncertain	Intrument #1: Type:	Reading	_	
Color:	MUN GSA I Dark Brown	Intrument #2: Type:		_	
Coloration:	UNI MTD VAR STN	Sorting: WEL N	OD POR NA		
Texture: GVL:	5 %ANG SUB RND NA	Plasticity: NON L	OW MED HGH NA		
SND:	5 % ANG SUB RND NA		IST WET SAT NA		
SLT:		Cementation: NON	SLT MOD WEL NA		
CLY:		Strength: NOC / C		_	
ORG:		Upper Contact: SHP G	RD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other: silty CLAY with some sand and gravel; 4'-	E El grados with mild note	aloum adar and aslar shangs	_	
	to yellowish brown mottled 15 % gray	o.5 grades with mild petro	oleum odor and color change	,	
6.5 FT BGS					
Material:	Natural Fill Uncertain	Intrument #1: Type:	Reading		
Color:	MUN GSA Olive Brown	Intrument #2: Type:		_	
Coloration:	UNI MTD VAR STN	Sorting: WEL N	MOD POR NA		
Texture: GVL:	ANG SUB RND NA	,	LOW MED HGH NA		
SND:			IST WET SAT NA		
SLT:			SLT MOD WEL NA		
CLY:	<u></u>	Strength: NOC / C Upper Contact: SHP		_	
ORG: Observed:	STN SHN ODR PRD NA Other:	Opper Contact: SHP	GRD DIF SIME INA		
Observed.	silty gravelly clayey SAND with mild petrol	leum odor/staining		_	
	_	•			
8.5 FT BGS					
Material:	Natural Fill Uncertain	Intrument #1: Type:	Reading	_	
Color:	MUN GSA _ Grayish Brown	Intrument #2: Type:	Reading	_	
Coloration:	UNI MTD VAR STN	· ·	MOD POR NA		
Texture: GVL:	10 % ANG SUB RND NA	•	OW MED HGH NA		
SND:			IST WET SAT NA		
SLT:			SLT MOD WEL NA		
CLY:		Strength: NOC / C		_	
ORG: Observed:	STN SHN ODR PRD NA Other:	Upper Contact: SHP	OND DIE SINE INA		
Observed.	gravelly sandy silty CLAY with mild petrol	eum odor/staining. BOTT	OM OF BORING 10.0'	_	
	_	J			
10 FT BGS					
Material:	Natural Fill Uncertain	Intrument #1: Type:	Reading	_	
Color:	MUN GSA	Intrument #2: Type:		_	
Coloration:	UNI MTD VAR STN	•	10D POR NA		
Texture: GVL: SND:	MACH SUB RND NA ANG SUB RND NA	•	OW MED HGH NA IST WET SAT NA		
SND: SLT:			SLT MOD WEL NA		
CLY:		Strength: NOC / C			
ORG:		Upper Contact: SHP G	RD DIF SME NA	_	
Observed:	STN SHN ODR PRD NA Other:			-	
	1				
<u></u>					

E&E Ove	erburden Borehole Logging	g Form	Locatio	n ID:	RH	-UST	-13
Client:	U.S. EPA		Date: 6/18/2009			Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill	Drilling Com	pany:				
Site/Area:	Underground Storage Tank System		tor(s): Paul Jones				
Project No.	002693.6009.01BR	_ ~	Type: Geoprobe 54	00			
Geologist:	Paul Jones	_ Drill Bit - Type					
Signature:		_ Sample Me	ethod: Direct Push l	Macrocore			
						Depth	PID
Start Time:	1305 Location Coordinat		Sample ID	Interval	Type	(Ft)	(ppm)
Top Depth:	Ft. Lat 37.7847045329		H-UST-13-0.5	0.5'	S		
Bottom Depth			H-UST-1013-0.5	0.5'	S		
Finish Time:	1410		H-UST-13-2	2.0'	S		
Recovery: 1:	N/A 2. N/A 3. N/A 4		H-UST-13-4	4.0'	S		
			H-UST-13-8 H-UST-13-10	8.0' 10.0'	S		
0 FT D00	.	KI	1-031-13-10	10.0	3		
0 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: Type:		ading			
Color:	MUN GSA Dark Grayish Brown UNI MTD VAR STN	Intrument #2: Type:		ading	_		
Coloration:		ū	EL MOD POR N				
Texture: GVL:		•	ON LOW MED F RY MST WET S.				
SND							
SLT			ON SLT MOD W				
CLY ORG	. <u>30</u> %	U	OC / COH IP GRD DIF SME	very stiff	-		
Observed:	STN SHN ODR PRD NA Other:	Opper Contact. Sn	IP GRD DIF SWIE	I INA			
Obcolved.	gravelly sandy silty CLAY; 10' grades yel	lowish brown and st	iff. BOTTOM OF BO	ORING 10.0'	-		
	_						
10 FT BGS	8						
Material:	Natural Fill Uncertain	Intrument #1: Type:	:Re	ading	_		
Color:	MUN GSA Brownish Gray	Intrument #2: Type:	: Re	ading			
Coloration:	UNI MTD VAR STN	J	IG SUB RND NA				
Texture: GVL:		•	ON LOW MED HO				
SND SLT			RY MST WET SA				
CLY			ON SLT MOD WE OC/COH	EL INA			
ORG		•	IP GRD DIF SME	. NA	-		
Observed:	STN SHN ODR PRD NA Other:	-11					
					_		
	-						
Material:	Natural Fill Uncertain	Intrument #1: Type:		ading	_		
Color: Coloration:	MUN GSA UNI MTD VAR STN	Intrument #2: Type: Sorting: AN	:Rea IG SUB RND NA	ading	-		
Texture: GVL:		J	ON LOW MED H				
SND		•	RY MST WET SA				
SLT	: %	Cementation: NC	ON SLT MOD WE	EL NA			
CLY		3	C / COH		_		
ORG		Upper Contact: SH	IP GRD DIF SME	E NA			
Observed:	STN SHN ODR PRD NA Other:				-		
	1						
Material:	Natural Fill Uncertain	Intrument #1: Type:	. Po	ading			
Color:	MUN GSA	Intrument #2: Type:	·	ading ading	-		
Coloration:	UNI MTD VAR STN		EL MOD POR NA	•			
Texture: GVL:		•	ON LOW MED HO				
SND		Moisture: DR	RY MST WET SA	T NA			
SLT			ON SLT MOD WE	EL NA			
CLY		o .	OC / COH	- NIA	-		
ORG Observed:	:% STN SHN ODR PRD NA Other:	opper contact: SH	IP GRD DIF SME	: NA			
Observeu.	OTH OTHE ODE TEND IN OTHER.				-		
	1						

E&E Ove	erburden Borehole Loggin	g Form	Locatio	n ID:	RH	-US7	-14
Client:	U.S. EPA		Date: 6/18/2009			Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill		Company:				
Site/Area:	Underground Storage Tank System	O _I	perator(s): Paul Jones				
Project No.	002693.6009.01BR		Rig/Type: Geoprobe 54	100			
Geologist:	Paul Jones		Type/Size:				
Signature:		_ Sampl	e Method: Direct Push	Macrocore			
						Depth	
Start Time:	1430 Location Coordinat	es	Sample ID	Interval	Туре	(Ft)	(ppm)
Top Depth:	Ft. Lat 37.7846823833	200	RH-UST-14-0.5	0.5'	S		
Bottom Depth		300	RH-UST-14-2	2.0'	S		
Finish Time: Recovery: 1:	1520 N/A	NI/A	RH-UST-14-4 RH-UST-14-8	4.0' 8.0'	S		
Recovery. 1.	<u> </u>	IN/A	RH-UST-1014-8	8.0'	S		
			RH-UST-14-10	10.0'	S		
0 FT BGS			14110	10.0			
Material:	Natural Fill Uncertain	Intrument #1:	Туре: Re	ading			
Color:	(MUN) GSA Dark Grayish Brown			ading			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR	•			
Texture: GVL:		Plasticity:	NON LOW MED H				
SND		Moisture:	DRY MST WET S				
SLT		Cementation:	NON SLT MOD W				
CLY		Strength:	NOC / COH	very stiff			
ORG			:: SHP GRD DIF SMI		_		
Observed:	STN SHN ODR PRD NA Other:	5pp 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
	sandy silty CLAY with some gravel. grad	es yellowish br	own with moderate plas	sticity 7'-10'.	_		
	BOTTOM OF BORING 10.0'						
10 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1:	Type: Re	ading			
Color:	MUN GSA dark brownish gray	Intrument #2:	,	ading			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA				
Texture: GVL:		Plasticity:	NON LOW MED H				
SND SLT		Moisture: Cementation:	DRY MST WET SA				
CLY		Strength:	NOC / COH	L IVA			
ORG		U	: SHP GRD DIF SMI	E NA	_		
Observed:	STN SHN ODR PRD NA Other:				_		
	٦						
	<u></u>	Indoor	T D.				
Material: Color:	Natural Fill Uncertain MUN GSA		·	eading ading			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N	-			
Texture: GVL:		Plasticity:	NON LOW MED H				
SND	:% ANG SUB RND NA	Moisture:	DRY MST WET SA	AT NA			
SLT		Cementation:		EL NA			
CLY		Strength:	NOC / COH	- 14	_		
ORG Observed:	: % STN SHN ODR PRD NA Other:	Upper Contact	:: SHP GRD DIF SMI	= NA			
Observed.	STIN STIN ODK FIND IN Stiles.				_		
	_						
Material:	Natural Fill Uncertain	Intrument #1:	Туре: Re	ading			
Color:	MUN GSA	Intrument #2:	,	ading			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N				
Texture: GVL:		Plasticity:	NON LOW MED H				
SND SLT		Moisture: Cementation:	DRY MST WET SA				
CLY		Strength:	NOC / COH	IVA			
ORG		•	: SHP GRD DIF SMI	E NA	_		
Observed:	STN SHN ODR PRD NA Other:				_		
	=						

E&E Ove	erburden Borehole Logging	Form Location	n ID:	RH-UST-15
Client:	U.S. EPA	Date: 6/19/2009	1	Page: <u>1 of 1</u>
Project:	Habitat for Humanity EB Redwood Hill	Drilling Company:		. age. <u>. e</u>
Site/Area:	Underground Storage Tank System	Operator(s): Paul Jones		
Project No.	002693.6009.01BR	Rig/Type: Geoprobe 54	100	
Geologist:	Paul Jones	Drill Bit - Type/Size:		
Signature:		Sample Method: Direct Push	Macrocore	
				Depth PID
Start Time:	1300 Location Coordinate	es Sample ID	Interval	Type (Ft) (ppm)
Top Depth:	Ft. Lat 37.7846480170	RH-UST-15-0.5	0.5'	S
Bottom Depth:	10 Ft. Long -122.1878397080	00 RH-UST-15-2	2.0'	S
Finish Time:	1400	RH-UST-15-4	4.0'	S
Recovery: 1: _	<u>N/A</u> 2. <u>N/A</u> 3. <u>N/A</u> 4. <u>N</u>	I/A RH-UST-15-8	8.0'	S
	_	RH-UST-15-10	10.0'	S
0 FT BGS		<u> </u>		
Material:	Natural Fill Uncertain	Intrument #1: Type:Rea	ading	
Color:	MUN GSA I Dark Brown	Intrument #2: Type: Rea	ading	
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR N	Α	
Texture: GVL:	5 % ANG SUB RND NA	Plasticity: NON LOW MED H	GH NA	
SND:	10 % ANG SUB RND NA	Moisture: DRY MST WET S	AT NA	
SLT:	35 %	Cementation: NON SLT MOD W	/EL NA	
CLY:	50 % USCS SYM: CL	Strength: NOC / COH	very stiff	
ORG:		Upper Contact: SHP GRD DIF SME		
Observed:	STN SHN ODR PRD NA Other:			
	sandy silty CLAY with some gravel; grade	s olive brown with ~35 % sand and gra	vel from 7' to	
	10'. BOTTOM OF BORING 10.0'			
10 FT BGS				
Material:	Natural Fill Uncertain	Intrument #1: Type: Re	ading	
Color:	MUN GSA Medium brown	,	ading	
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR N		
Texture: GVL:		Plasticity: NON LOW MED H		
SND: SLT:		Moisture: DRY MST WET SA Cementation: NON SLT MOD WE		
CLY:		Strength: NOC / COH	soft	
ORG:		Upper Contact: SHP GRD DIF SME		
Observed:	STN SHN ODR PRD NA Other:			
	1			
				—
Material:	Natural Fill Uncertain	<i>7</i> . ————	ading	
Color: Coloration:	MUN GSA UNI MTD VAR STN		ading	
Texture: GVL:	% ANG SUB RND NA	Sorting: WEL MOD POR NA Plasticity: NON LOW MED HO		
SND:		Moisture: DRY MST WET SA		
SLT:		Cementation: NON SLT MOD WE		
CLY:	% USCS SYM:	Strength: NOC / COH		
ORG:		Upper Contact: SHP GRD DIF SME	NA	
Observed:	STN SHN ODR PRD NA Other:	1		
	1			
				
Material:	Natural Fill Uncertain	·	ading	
Color:	MUN GSA		ading	
Coloration: Texture: GVL:	UNI MTD VAR STN % ANG SUB RND NA	Sorting: WEL MOD POR NA Plasticity: NON LOW MED HO		
SND:		Moisture: DRY MST WET SA		
SLT:		Cementation: NON SLT MOD WE		
CLY:		Strength: NOC / COH		
ORG:	%	Upper Contact: SHP GRD DIF SME	NA NA	
Observed:	STN SHN ODR PRD NA Other:			
	1			

E&E Ove	erburden Borehole Logging	g Form	Locatio	n ID:	RH	-US7	T-16
Client:	U.S. EPA		Date: 6/19/2009			Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill	Drilling (Company:				
Site/Area:	Underground Storage Tank System		perator(s): Paul Jones				
Project No.	002693.6009.01BR		Rig/Type: Geoprobe 54	00			
Geologist:	Paul Jones	_ Drill Bit - T					
Signature:		_ Sample	e Method: Direct Push	Macrocore			
						Depth	PID
Start Time:	1140 Location Coordinate	es	Sample ID	Interval	Туре	(Ft)	(ppm)
Top Depth: Bottom Depth:	Ft. Lat 37.7846835949 10 Ft. Long -122.187841919	00	RH-UST-16-0.5 RH-UST-16-2	0.5' 2.0'	S		
Finish Time:	1300 Long -122.167841919	00	RH-UST-16-4	4.0'	S		
	N/A 2. N/A 3. N/A 4. N	/A	RH-UST-1016-4	4.0'	S		
		<u>,</u>	RH-UST-16-8	8.0'	S		
	_		RH-UST-16-10	10.0'	S		
0 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: T	ype: Rea	ding			
Color:	MUN GSA I Light Brown			iding			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N	IA			
Texture: GVL:	2 % ANG SUB RND NA	Plasticity:	NON LOW MED H	IGH NA			
SND:	98 % ANG SUB RND NA	Moisture:	DRY MST WET S	AT NA			
SLT:		Cementation:	NON SLT MOD W	'EL NA			
CLY:		Strength:	NOC / COH	loose	_		
ORG:		Upper Contact:	SHP GRD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other: Clean Fill SAND				-		
	Cicali i III SAND						
1.5 FT BGS	<u> </u>						
Material:	Natural Fill Uncertain		ype: Rea				
	MUD GSA I Dark Brown			ding	-		
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N				
Texture: GVL:	10 % ANG SUB RND NA	Plasticity:	NON LOW MED H				
SND:		Moisture:	DRY MST WET S				
SLT: CLY:		Cementation: Strength:	NON SLT MOD W	'EL NA very stiff			
ORG:		-	SHP GRD DIF SM		-		
Observed:	STN SHN ODR PRD NA Other:	oppor ountaut.	J.II OND DII SIV	- 19/1			
	grades grayish brown with strong petrole	um odor 5'-10'; g	grades sandy soft CLA	/ 9'-10'.	-		
	BOTTOM OF BORING 10.0'	,	-				
10 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: T		iding	-]		
Color:	MUN GSA I		,	iding	-		
Coloration: Texture: GVL:	UNI MTD VAR STN % ANG SUB RND NA	Sorting: Plasticity:	WEL MOD POR NA NON LOW MED HO				
SND:		Moisture:	DRY MST WET SA				
SLT:		Cementation:					
CLY:		Strength:	NOC / COH		_		
ORG:		Upper Contact:	SHP GRD DIF SME	NA NA			
Observed:	STN SHN ODR PRD NA Other:				-		
	<u> </u>						
Material:	Natural Fill Uncertain	Intrument #1: T	ype: Rea	ding			
Color:	MUN GSA I		· · — —	iding			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA	•			
Texture: GVL:	%ANG SUB RND NA	Plasticity:	NON LOW MED HO				
SND:		Moisture:	DRY MST WET SA				
SLT: CLY:		Cementation: Strength:	NON SLT MOD WE	L INA			
ORG:		•	SHP GRD DIF SME	NA NA	-		
Observed:	STN SHN ODR PRD NA Other:				_		
	-				_		
						<u> </u>	<u> </u>

E&E Ove	erburden Boi	rehole Logging	g Form	Locatio	n ID:	RH-	-UST-17
Client: Project: Site/Area: Project No.	U.S. EPA Habitat for Humani Underground Storag 002693.6009.01BR		Op	Date: 6/18/2009 Company: erator(s): Paul Jones Rig/Type: Geoprobe 54	100	_	Page: <u>1 of 1</u>
Geologist:	Paul Jones		Drill Bit - T	ype/Size:			
Signature:			Sample	e Method: Direct Push	Macrocore		
Start Time: Top Depth: Bottom Depth Finish Time:		Location Coordinat at 37.7846838891 ong -122.187937972		Sample ID RH-UST-17-0.5 RH-UST-17-2 RH-UST-17-4	Interval 0.5' 2.0' 4.0'	Type S S	Depth PID (Ft) (ppm)
	N/A 2. N/A	3. <u>N/A</u> 4	N/A	RH-UST-17-8	8.0'	S	
0 FT D00	1			RH-UST-17-10	10.0'	S	
0 FT BGS		daia	Intrument #1. T	ivno.	adina		<u> </u>
Coloration: Texture: GVL: SND: SLT: CLY: ORG:	10 % At 35 %	STN NG SUB RND NA NG SUB RND NA W: CL	Intrument #2: T Sorting: Plasticity: Moisture: Cementation: Strength:		HGH NA AT NA /EL NA very stiff		
Observed:	sandy silty CLAY v plasticity 4'-7'		es with moderat	e petroleum odor 2'-7';	grades high	=	
7.0 FT BGS Material:	Natural Fill Uncer	rtain	Intrument #1: T	'ype: Re	ading		
	MUD GSA Greenis		Intrument #2: T		ading ading		
Coloration:	UNI MTD VAR S		Sorting:	WEL MOD POR N			
Texture: GVL: SND: SLT: CLY: ORG:	60 % Af 10 % 5 % USCS SYM	NG SUB RND NA NG SUB RND NA M: SC	Plasticity: Moisture: Cementation: Strength: Upper Contact:	NON LOW MED HODRY MST WET S NON SLT MOD WE NOC/COH SHP GRD DIF SME	AT NA EL NA	_	
Observed:	clayey gravelly SA	R PRD NA Other: ND with some silt; obv		odor. BOTTOM OF BOI		-	
10 FT BGS Material:	Natural Fill Uncer	rtain	Intrument #1. T	'ype: Re	ading		
Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	MUN GSA	STN NG SUB RND NA NG SUB RND NA M:	Intrument #2: T Sorting: Plasticity: Moisture: Cementation: Strength:	ype:Re WEL MOD POR NA NON LOW MED HO DRY MST WET SA	ading A GH NA IT NA EL NA		
	<u> </u>					-	
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	% AI % USCS SYN	STN NG SUB RND NA NG SUB RND NA	Intrument #2: T Sorting: Plasticity: Moisture: Cementation: Strength:	WEL MOD POR NA NON LOW MED HO DRY MST WET SA	ading A GH NA IT NA EL NA		
	1						

E&E Ove	rburden Borehole Logging	g Form	I	Locatio	n ID:	R	H-AS	S-18
Client:	U.S. EPA		Date:	6/17/2009			Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill	 Drilling C	Company:	0,11,200		_		
Site/Area:	Auto Storage		erator(s): F	Paul Jones				
Project No.	002693.6009.01BR		Rig/Type: C		00			
Geologist:	Paul Jones	Drill Bit - T	ype/Size:					
Signature:		Sample	e Method: I	Direct Push l	Macrocore			
		<u> </u>					Domath	PID
Start Time:	0940 Location Coordinate	es	Sami	ple ID	Interval	Туре	Depth (Ft)	(ppm)
Top Depth:	Ft. Lat 37.7849751919	-	RH-AS-18		0.5'	S	()	(PP)
Bottom Depth:		'00	RH-AS-10		0.5'	S		
Finish Time:	1020		RH-AS-18	3-2	2.0'	S		
Recovery: 1: _	N/A 2. N/A 3. N/A 4. N	/A	RH-AS-18	3-4	4.0'	S		
-			RH-AS-18	3-8	8.0'	S		
			RH-AS-18	3-10	10.0'	S		
0 FT BGS								
Material:	Natural Fill Uncertain	Intrument #1: Ty	/ne·	Rea	ding			
	(MUN) GSA I Brown	Intrument #2: Ty			ding			
Coloration:	UNI MTD VAR STN	Sorting:		D POR N A		_		
Texture: GVL:	10 % ANG SUB RND NA	Plasticity:		W MED H				
SND:	5 % ANG SUB RND NA	Moisture:		T WET S				
SLT:	40 %	Cementation:		T MOD W				
CLY:		Strength:	NOC / COF	_	very stiff			I
ORG:		Upper Contact:				-		ı
Observed:	STN SHN ODR PRD NA Other:	oppor contact.	OIII OIID	DII OIVIL				
	Gravelly silty CLAY with some sand					_		
	<u> </u>							
8.5 FT BGS								
Material:	Natural Fill Uncertain	Intrument #1: Ty	/pe:	Rea	ding			
Color:	MUN GSA I Light Yellowish Brown	Intrument #2: Ty			ding			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD	POR N	A			
Texture: GVL:	% ANG SUB RND NA	Plasticity:	NON LO	W MED H	IGH NA			
SND:	% ANG SUB RND NA	Moisture:	DRY MS	T WET S	AT NA			
SLT:	90 %	Cementation:	NON SL	T MOD W	EL NA			
CLY:	10 % USCS SYM: ML	Strength:	NOC / COF	4	firm			
ORG:	<u></u> %	Upper Contact:	SHP GR	D DIF SM	E NA			
Observed:	STN SHN ODR PRD NA Other:					_		
	clayey SILT. BOTTOM OF BORING 10.0'							
	1							
10 FT BGS								
Material:	Natural Fill Uncertain	Intrument #1: Ty			ding	-]		
Color:	MUN GSA	•	•		ding	-		
Coloration:	UNI MTD VAR STN	Sorting:		D POR NA				
Texture: GVL: SND:	%ANG SUB RND NA ANG SUB RND NA	Plasticity: Moisture:		V MED HO WET SA				
SND: SLT:		Cementation:		MOD WE				
CLY:		Strength:	NOC / COF		141			
ORG:		Upper Contact:			NA	-		
Observed:	STN SHN ODR PRD NA Other:					_		
	,							
Material:	Natural Fill Uncertain	Intrument #1: Ty	/pe:	Rea	ding	_		
Color:	MUN GSA	Intrument #2: Ty	/pe:	Rea	ding	_		
Coloration:	UNI MTD VAR STN	Sorting:		D POR NA				
Texture: GVL:	MANG SUB RND NA	Plasticity:		V MED HO				
SND:		Moisture:		WET SA				
SLT: CLY:	% USCS SYM:	Cementation: Strength:	NON SLI	MOD WE	L NA			
ORG:		Upper Contact:			NA	-		
Observed:	STN SHN ODR PRD NA Other:	oppor contact.	J OILD	OIVIL	- ····			
						-		

E&E Ove	erburden Borehole Logging	g Form	Location	n ID:	Rŀ	1-AS-19
Client: Project:	U.S. EPA Habitat for Humanity EB Redwood Hill		Date: 6/17/2009)	_	Page: <u>1 of 1</u>
Site/Area:	Auto Storage	_	erator(s): Paul Jones			
Project No.	002693.6009.01BR	_ `	Rig/Type: Geoprobe 54	400		
Geologist:	Paul Jones	Drill Bit - T				
Signature:		Sample	Method: Direct Push	Macrocore		
						Depth PID
Start Time:	0830 Location Coordinate	es	Sample ID	Interval	Type	(Ft) (ppm)
Top Depth:	Ft. Lat 37.7849798749		RH-AS-19-0.5	0.5'	S	
Bottom Depth:	10 Ft. Long -122.187977295	00	RH-AS-19-2	2.0'	S	
Finish Time:	940		RH-AS-19-4	4.0'	S	
Recovery: 1: _	<u>N/A</u> 2. <u>N/A</u> 3. <u>N/A</u> 4. <u>N</u>	<u>I/A</u>	RH-AS-19-8	8.0'	S	
	•		RH-AS-19-10	10.0'	S	
0 FT BGS						
Material:	Natural Fill Uncertain			ading		
Color:	MUN GSA I Light Yellowish Brown	Intrument #2: Ty		ading	-	
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N			
Texture: GVL:	%ANG SUB RND NA	Plasticity:	NON LOW MED I			
SND:		Moisture:	DRY MST WET S			
SLT:		Cementation:	NON SLT MOD V	VEL NA		
CLY:		Strength:	NOC / COH	firm	_	
ORG: Observed:	STN SHN ODR PRD NA Other:	Upper Contact:	SHP GRD DIF SMI	E NA		
Observed:	sandy SILT with some clay	-			-	
	canay cizi man come diay					
3.5 FT BGS						
Material:	Natural Fill Uncertain		•	ading	_	
	MUD GSA I Yellowish Brown	•		ading	-	
Coloration: Texture: GVL:	UNI MTD VAR STN % ANG SUB RND NA	Sorting: Plasticity:	WEL MOD POR NA			
SND:		Moisture:	DRY MST WET S			
SLT:		Cementation:	NON SLT MOD V			
CLY:		Strength:	NOC / COH	stiff		
ORG:	 %	Upper Contact:	SHP GRD DIF SM	ΛΕ NA	_	
Observed:	STN SHN ODR PRD NA Other:				_	
	sandy clayey SILT. BOTTOM OF BORING	10.0'				
40 FT DCC	1					
10 FT BGS		latarras ant #4 . To	D-	11		
Material: Color:	Natural Fill Uncertain MUN GSA	•		ading ading	-	
Color:	UNI MTD VAR STN	Sorting:	WEL MOD POR N		-	
Texture: GVL:	% ANG SUB RND NA	Plasticity:	NON LOW MED H			
SND:		Moisture:	DRY MST WET SA			
SLT:		Cementation:	NON SLT MOD WI	EL NA		
CLY:		Strength:	NOC / COH		_	
ORG: Observed:	STN SHN ODR PRD NA Other:	Opper Contact:	SHP GRD DIF SMI	E NA		
Obscived.	OTH OTHER OBJECT TO THE OTHER.				-	
	_					
Material:	Natural Fill Uncertain	Intrument #1: Ty	/pe:Re	ading		
Color:	MUN GSA	Intrument #2: Ty	/pe: Re	ading	_	
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N			
Texture: GVL:	ANG SUB RND NA	Plasticity:	NON LOW MED H			
SND: SLT:		Moisture: Cementation:	DRY MST WET SA			
CLY:		Strength:	NOC / COH			
ORG:	 %	-	SHP GRD DIF SMI	E NA	-	
Observed:	STN SHN ODR PRD NA Other:				_	
	•					

E&E Ove	rburden Borehole Logging	Form	Locatio	n ID:	RI	H-AR-20
Project: Site/Area:	U.S. EPA Habitat for Humanity EB Redwood Hill Auto Repair		erator(s): Paul Jones		_	Page: <u>1 of 1</u>
	002693.6009.01BR		Rig/Type: Geoprobe 54	.00		
Geologist: Signature:	Paul Jones	Drill Bit - Tr	ype/Size: Method: Direct Push I	Macrocore		
olgilature.	1	_ Oampio	Metriod. Direct rush	viacrocore		
Start Time: Top Depth:	1215 Location Coordinate Ft. Lat 37.7848913885		Sample ID RH-AR-20-0.5	Interval 0.5'	Type S S	Depth PID (Ft) (ppm)
Bottom Depth: Finish Time:	8 Ft. Long -122.188047798	00	RH-AR-1020-0.5 RH-AR-20-2	0.5' 2.0'	S	
	N/A 2. N/A 3. N/A 4. N	V/A	RH-AR-20-4	4.0'	S	
			RH-AR-20-8	8.0'	S	
0 FT BGS						
Color: (Natural Fill Uncertain MUN GSA <u>Brown</u> UNI MTD VAR STN	Intrument #1: Ty Intrument #2: Ty Sorting:		ading ading NA		
Texture: GVL:	70 % ANG SUB RND NA	Plasticity:	NON LOW MED H			
SND:	20 % ANG SUB RND NA	Moisture:	DRY MST WET S NON SLT MOD W			
SLT: CLY:	% 10 % USCS SYM: GC	Cementation: Strength:	NOC / COH	stiff		
ORG:	%	•	SHP GRD DIF SME		-	
	STN SHN ODR PRD NA Other:				-	
	clayey sandy GRAVEL					
4 FT BGS						
Material:	Natural Fill Uncertain			ading		
1	MUD GSA Yellowish Brown			ading		
Coloration: Texture: GVL:	UNI MTD VAR STN % ANG SUB RND NA	Sorting: Plasticity:	WEL MOD POR N. NON LOW MED H			
SND:	% ANG SUB RND NA	Moisture:	DRY MST WET S			
SLT:	40 %	Cementation:	NON SLT MOD W	EL NA		
CLY:	60 % USCS SYM: CL	Strength:	NOC / COH	very stiff	-	
ORG: Observed:	% STN SHN ODR PRD NA Other:	Upper Contact:	SHP GRD DIF SM	IE NA		
	silty CLAY				-	
7.5 FT BGS						
	Natural Fill Uncertain MUN GSA Yellowish Brown		ype: Re ype: Re	ading ading		
	UNI MTD VAR STN	Sorting:	WEL MOD POR N	<u> </u>		
Texture: GVL:	%ANG SUB RND NA	Plasticity:	NON LOW MED H	HGH NA		
SND:	80 % ANG SUB RND NA	Moisture:	DRY MST WET S			
SLT: CLY:		Cementation: Strength:	NON SLT MOD W	/EL NA stiff		
ORG:		•	SHP GRD DIF SME		-	
	STN SHN ODR PRD NA Other:				_	
	silty SAND with some CLAY; fine grained,	, well sorted. BC	OTOM OF BORING 8.0'			
8 FT BGS						
_	Natural Fill Uncertain	Intrument #1: T	ype:Re	ading		
Color:	MUN GSA			ading		
	UNI MTD VAR STN % ANG SUB RND NA	Sorting:	WEL MOD POR NA			
Texture: GVL: SND:	%ANG SUB RND NA ANG SUB RND NA	Plasticity: Moisture:	NON LOW MED HO			
SLT:	<u> </u>	Cementation:	NON SLT MOD WE			
CLY: ORG:	% USCS SYM: %	Strength:	NOC/COH SHP GRD DIF SME	- ΝΔ	-	
_	STN SHN ODR PRD NA Other:	opper contact.	OTH OND DIE SIVIE	- IV/1		
					-	
						<u> </u>

E&E Ove	erburden Borehole Logging	g Form	Locatio	n ID:	RI	H-AF	R-21
Client: Project:	U.S. EPA Habitat for Humanity EB Redwood Hill		Date: 6/17/2009 Company:		=	Page:	1 of 1
Site/Area:	Auto Repair		perator(s): Paul Jones				
Project No.	002693.6009.01BR		Rig/Type: Geoprobe 54	-00			
Geologist:	Paul Jones	_ Drill Bit - T		Μ			
Signature:		_ Sample	e Method: Direct Push	wiacrocore			
Start Time:	1500 Location Coordinat	es	Sample ID	Interval	Туре	Depth (Ft)	PID (ppm)
Top Depth:	Ft. Lat 37.7848771567		RH-AR-21-0.5	0.5'	S		
Bottom Depth:		00	RH-AR-21-2	2.0'	S		
Finish Time:	1540	1/4	RH-AR-21-4	4.0'	S		
Recovery: 1: _		<u>V/A</u>	RH-AR-21-8	8.0'	S		
0 FT BGS							
Material:	Natural Fill Uncertain			ading	_		
Color:	(MUN) GSA I Medium Brown	Intrument #2: T	,	ading	_		
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR ${f N}$	A			
Texture: GVL:	%ANG SUB RND NA	Plasticity:	NON LOW MED H				
	%ANG SUB RND NA	Moisture:	DRY MST WET S				
SLT		Cementation:	NON SLT MOD W	/EL NA			l
CLY:		Strength:	NOC / COH	very stiff	_		
ORG:		Upper Contact:	SHP GRD DIF SME	E NA			
Observed:	STN SHN ODR PRD NA Other:			DOTTOM OF	-		
	silty CLAY, grades at 6'-7' sandy and grav BORING 8.0'	elly; grades 7'-8'	with moderate plastic	ty. BOTTOM OF			
8 FT BGS							
Material:	Natural Fill Uncertain	·	·	ading	_		
Color: Coloration:	MUN GSA Grayish Brown UNI MTD VAR STN	Sorting:	ype:Rea WEL MOD POR NA	ading	_		
Texture: GVL:	% ANG SUB RND NA	Plasticity:	NON LOW MED HO				
SND:		Moisture:	DRY MST WET SA				
SLT	%	Cementation:	NON SLT MOD WE	L NA			
CLY:	% USCS SYM:	Strength:	NOC / COH		_		
ORG:		Upper Contact:	SHP GRD DIF SME	E NA			
Observed:	STN SHN ODR PRD NA Other:				-		
	1						
	N. d. Fill III	latarras ant UA. T	D	U			
Material: Color:	Natural Fill Uncertain	·	ype:Rea ype: Rea	-			
Coloration:	MUN GSA UNI MTD VAR STN	Sorting:	WEL MOD POR NA	ading 1	_		
Texture: GVL:	% ANG SUB RND NA	Plasticity:	NON LOW MED HO				
SND:		Moisture:	DRY MST WET SA				
SLT:	<u> </u>	Cementation:	NON SLT MOD WE	L NA			
CLY:		Strength:	NOC / COH		_		
ORG:		Upper Contact:	SHP GRD DIF SME	E NA			
Observed:	STN SHN ODR PRD NA Other:				-		
	1						
	<u> </u>						
Material:	Natural Fill Uncertain		·· ——	ading	-		
Color: Coloration:	MUN GSA UNI MTD VAR STN	Sorting:	ype:Rea WEL MOD POR NA	ading	-		
Texture: GVL:	% ANG SUB RND NA	Plasticity:	NON LOW MED H				
SND:		Moisture:	DRY MST WET SA				
SLT		Cementation:	NON SLT MOD WE				
CLY:		Strength:	NOC / COH		_		
ORG:		Upper Contact:	SHP GRD DIF SME	NA			
Observed:	STN SHN ODR PRD NA Other:				-		
	1						
	<u> </u>						

E&E Ove	rburden Borehole Logging	g Form	Location ID:	RH-AR-22
Project No.	U.S. EPA Habitat for Humanity EB Redwood Hill Auto Repair 002693.6009.01BR Paul Jones	Drilling Company: Operator(s): Rig/Type: Drill Bit - Type/Size:	Paul Jones Geoprobe 5400	Page: <u>1 of 1</u>
0 FT BGS Material:	1630 N/A 2. N/A 3. N/A 4. N Natural Fill Uncertain MUD GSA [Brown UNI MTD VAR STN 10 % ANG SUB RND NA 15 % ANG SUB RND NA 25 % 50 % USCS SYM: CL	RH-AR- RH	22-2 2.0' 1022-2 2.0' 22-4 4.0' 22-8 8.0' Reading Reading OD POR NA OW MED HGH NA ST WET SAT NA SLT MOD WEL NA OH very stiff RD DIF SME NA	_
8 FT BGS Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA I UNI MTD VAR STN ANG SUB RND NA ANG SUB RND NA ANG SUB RND NA SUB RND NA USCS SYM:	Plasticity: NON LC Moisture: DRY MS	Reading OD POR NA DW MED HGH NA ST WET SAT NA LT MOD WEL NA OH	
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	% USCS SYM:	Plasticity: NON LC Moisture: DRY MS	Reading OD POR NA DW MED HGH NA ST WET SAT NA LT MOD WEL NA OH	
Coloration: Texture: GVL: SND: SLT: CLY: ORG:	% USCS SYM:	Plasticity: NON LC Moisture: DRY MS	Reading OD POR NA DW MED HGH NA ST WET SAT NA LT MOD WEL NA OH	

E&E Ove	rburden Borehole Logging	Form	Location ID:	RH-AR-23
Client: Project: Site/Area:	U.S. EPA Habitat for Humanity EB Redwood Hill Auto Repair	Date Drilling Company Operator(s)		Page: <u>1 of 1</u>
Project No.	002693.6009.01BR		: Geoprobe 5400	
Geologist: Signature:	Paul Jones	_ Drill Bit - Type/Size	: Direct Push Macrocore	
oignature.		- Sample Method	. Direct I usii Macrocole	
Start Time: Top Depth: Bottom Depth:	1630 <u>Location Coordinate</u> Ft. <u>Lat 37.7847911878</u> 8 Ft. <u>Long -122.188021734</u>	RH-AR-		Type Depth PID (Ft) (ppm) S S
Finish Time:	1710	RH-AR-		S
Recovery: 1:		<u>/A</u> RH-AR-	-23-8 8.0'	S
0 FT BGS				
	Natural Fill Uncertain MUD GSA [Brown UNI MTD VAR STN	Intrument #1: Type:	Reading	
Coloration: Texture: GVL:	10 % ANG SUB RND NA	-	IOD POR NA OW MED HGH NA	
SND:			IST WET SAT NA	
SLT:		Cementation: NON	SLT MOD WEL NA	
CLY:		Strength: NOC / C		_ .
ORG: Observed:	STN SHN ODR PRD NA Other:	Upper Contact: SHP G	RD DIF SME NA	
0.000.100.	sandy gravelly silty CLAY; grades 6'-7' ~40		es olive gray 6'-8' possible	-
	staining but no obvious odor. BOTTOM OF	F BORING 8.0'		
8 FT BGS		Interior and #4. Type	Deading	
Material: Color:	Natural Fill Uncertain MUN GSA	Intrument #1: Type: Intrument #2: Type:	Reading Reading	-
Coloration:	UNI MTD VAR STN		IOD POR NA	_
Texture: GVL:	MANO SUB RND NA	,	OW MED HGH NA	
SND: SLT:			ST WET SAT NA LT MOD WEL NA	
CLY:	% USCS SYM:	Strength: NOC / C	OH <u>firm</u>	_
ORG: Observed:	STN SHN ODR PRD NA Other:	Upper Contact: SHP G	RD DIF SME NA	
Observed.	31N 3HN ODR FRD NA Other.			-
	,			
Material: Color:	Natural Fill Uncertain MUN GSA	Intrument #1: Type:	Reading Reading	
Coloration:	UNI MTD VAR STN	,,	IOD POR NA	_
Texture: GVL:	%ANG SUB RND NA	•	OW MED HGH NA	
SND: SLT:			ST WET SAT NA LT MOD WEL NA	
CLY:		Strength: NOC / C		
ORG:		Upper Contact: SHP G	RD DIF SME NA	_
Observed:	STN SHN ODR PRD NA Other:			-
	_			
Material:	Natural Fill Uncertain	Intrument #1: Type:		_
Color: Coloration:	MUN GSA UNI MTD VAR STN	Intrument #2: Type: Sorting: WEL M	Reading IOD POR NA	-
Texture: GVL:		•	OW MED HGH NA	
SND:			ST WET SAT NA	
SLT: CLY:		Cementation: NON S Strength: NOC / C	LT MOD WEL NA OH	
ORG:	%	Upper Contact: SHP G		-
Observed:	STN SHN ODR PRD NA Other:			_
				II l

E&E Ove	erburden Borehole Logging	g Form	Locatio	n ID:	R	H-AF	₹-24
Client:	U.S. EPA		Date: 6/17/2009			Page:	1 of 1
Project:	Habitat for Humanity EB Redwood Hill	Drilling (Company:		-	ŭ	
Site/Area:	Auto Repair		perator(s): Paul Jones				
Project No.	002693.6009.01BR Paul Jones	_ Drill Bit - T	Rig/Type: Geoprobe 54	00			
Geologist: Signature:	Paul Jolles		e Method: Direct Push I	Macrocore			
						D 1	DID
Start Time:	1345 Location Coordinat	es	Sample ID	Interval	Туре	Depth (Ft)	PID (ppm)
Top Depth:	Ft. Lat 37.7848238987		RH-AR-24-0.5	0.5'	S		,
Bottom Depth		000	RH-AR-24-2	2.0'	S		
Finish Time:	1500	1/0	RH-AR-24-4	4.0'	S		
Recovery: 1: _	N/A 2. N/A 3. N/A 4. N	<u>//A</u>	RH-AR-1024-4 RH-AR-24-8	4.0' 8.0'	S		
0 FT BGS	7		IXI 1-AIX-24-0	0.0			
Material:	Natural Fill Uncertain	Intrument #1: T	ype: Rea	ding			
	(MUN) GSA I Medium Brown			ding			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA	4			
Texture: GVL:	15 % ANG SUB RND NA	Plasticity:	NON LOW MED H				
SND		Moisture:	DRY MST WET SA				
SLT		Cementation:	NON SLT MOD W				I
CLY: ORG:	. <u>30</u> %	Strength:	NOC/COH SHP GRD DIF SME	stiff NA	-		ĺ
Observed:	STN SHN ODR PRD NA Other:	Opper Contact.	SHE GILD DII SINL	· NA			
	sandy gravelly silty CLAY				-		
3 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: T		ding			
Color:	MUN GSA I Grayish Brown UNI MTD VAR STN		ype: Rea WEL MOD POR N	ding	-		
Coloration: Texture: GVL:		Sorting: Plasticity:	NON LOW MED H				
SND:		Moisture:	DRY MST WET SA				
SLT		Cementation:	NON SLT MOD W				
CLY	: 30 % USCS SYM: SC	Strength:	NOC / COH	very stiff	_		
ORG:		Upper Contact:	SHP GRD DIF SM	E NA			
Observed:	STN SHN ODR PRD NA Other: clayey silty gravelly SAND with mild petro	leum odor			-		
	_						
7 FT BGS							
Material:	Natural Fill Uncertain		ype: Rea	-			
Color:	MUN GSA _ Light Olive Brown			ding	-		
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA				
Texture: GVL: SND:		Plasticity: Moisture:	NON LOW MED H				
SLT		Cementation:					
CLY		Strength:	NOC / COH	very stiff	_		
ORG		Upper Contact:	SHP GRD DIF SM	E NA			
Observed:	STN SHN ODR PRD NA Other: silty CLAY with some sand and faint petro	oloum odor POT	TOM OF POPING 9 0'		-		
		Dieum Odor. BO	TOW OF BORING 8.0				
8 FT BGS							
Material:	Natural Fill Uncertain			ding			
Color: Coloration:	MUN GSA UNI MTD VAR STN	Sorting:	ype:Rea WEL MOD POR NA	ding	-		
Texture: GVL:		Plasticity:	NON LOW MED HO				
SND		Moisture:	DRY MST WET SA				
SLT: CLY:		Cementation:	NON SLT MOD WE	L NA			
ORG:	·	Strength: Upper Contact:	SHP GRD DIF SME	NA	-		
Observed:	STN SHN ODR PRD NA Other:				_		
	1						

E&E Ove	erburden Borehole Logging	Form Location ID:	RH-LI	P-25
Client: Project:	U.S. EPA Habitat for Humanity EB Redwood Hill	Date: 6/16/2009 Drilling Company:	Page	: <u>1 of 1</u>
Site/Area:	Lead Paint	Operator(s): Paul Jones		
Project No. Geologist:	002693.6009.01BR Paul Jones	Rig/Type: Geoprobe 5400 Drill Bit - Type/Size:		
Signature:	Tudi vones	Sample Method: Direct Push Macrocore		
			Depth	PID
Start Time:	1345 Location Coordinate	es Sample ID Interval Typ		(ppm)
Top Depth:	Ft. Lat 37.7846850604	RH-LP-25-0 0' S		
Bottom Depth:				
Finish Time:	1400 N/A 2. N/A 3. N/A 4. N	RH-LP-25-1 1.0' S VA RH-LP-25-2 2.0' S	_	
Recovery: 1: _	<u> </u>			
0 FT BGS		Interest WA. Torres	=	4.04
Material: Color:	Natural Fill Uncertain (MUN) GSA I Yellowish Brown	Intrument #1: Type: Reading Intrument #2: Type: Reading	0'	1.34
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA		
Texture: GVL:	50 % ANG SUB RND NA	Plasticity: NON LOW MED HGH NA		
SND:	25 % ANG SUB RND NA	Moisture: DRY MST WET SAT NA		
SLT:	15 %	Cementation: NON SLT MOD WEL NA	1.0'	2.2
CLY:	10 % USCS SYM: GW	Strength: NOC / COH loose		_
ORG:		Upper Contact: SHP GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other: well graded gravel fill, loose, dry			
	wen graded graver ini, 1003e, dry			
0.75 FT BGS			2.0'	10.1
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading		
Color:	MUN GSA I Dark Grayish Brown	Intrument #2: Type: Reading		
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA		
Texture: GVL:	ANG SUB RND NA	Plasticity: NON LOW MED HGH NA		
SND:		Moisture: DRY MST WET SAT NA		
SLT: CLY:		Cementation: NON SLT MOD WEL NA Strength: NOC / COH very stiff		
ORG:		Upper Contact: SHP GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other:			
	sandy silty CLAY with some gravel and ob	ovious roots <1%. BOTTOM OF BORING 2.0'		
2 FT BGS	1			
+		Intrument #1: Type: Reading		
Material: Color:	Natural Fill Uncertain MUN GSA	Intrument #2: Type: Reading		
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA		
Texture: GVL:	%ANG SUB RND NA	Plasticity: NON LOW MED HGH NA		
SND: SLT:		Moisture: DRY MST WET SAT NA Cementation: NON SLT MOD WEL NA		
CLY:		Strength: NOC / COH		
ORG:		Upper Contact: SHP GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other:			
	1			
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading		
Color:	MUN GSA	Intrument #2: Type: Reading		
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA		
Texture: GVL: SND:	ANG SUB RND NA ANG SUB RND NA	Plasticity: NON LOW MED HGH NA Moisture: DRY MST WET SAT NA		
SND: SLT:		Cementation: NON SLT MOD WEL NA		
CLY:		Strength: NOC / COH		
ORG:		Upper Contact: SHP GRD DIF SME NA		
Observed:	STN SHN ODR PRD NA Other:			
	_			
	1		Ш	

E&E Ove	erburden Borehole Loggin	g Form	Locatio	n ID:	R	H-LF	P-26
Client:	U.S. EPA		Date: 6/16/2009			Page	: 1 of 1
Project:	Habitat for Humanity EB Redwood Hill	— Drilling (Company:		_	i ago	. 1 01 1
Site/Area:	Lead Paint		perator(s): Paul Jones				
Project No.	002693.6009.01BR	_ `	Rig/Type: Geoprobe 54	00			
Geologist:	Paul Jones	Drill Bit - 7					
Signature:		Sampl	e Method: Direct Push I	Macrocore			
						Depth	PID
Start Time:	1315 Location Coordina	tes	Sample ID	Interval	Туре	(Ft)	(ppm)
Top Depth:	Ft. Lat 37.7847241650		RH-LP-26-0	0'	S		
Bottom Depth:	2 Ft. Long -122.188078400	000	RH-LP-26-1	1.0'	S		
Finish Time:	1340		RH-LP-26-2	2.0'	S		
Recovery: 1:	N/A 2. N/A 3. N/A 4	N/A					
0 FT BGS							
Material:	Natural Fill Uncertain	Intrument #1: T	ype:Rea	iding	_	0'	2.15
Color:	MUN GSA I Dark Brown	Intrument #2: T	••	ding	_		
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N				
Texture: GVL:	10 % ANG SUB RND NA	Plasticity:	NON LOW MED H				
SND		Moisture:	DRY MST WET S				
SLT	LICCC CVM:	Cementation:	NON SLT MOD W	EL NA			I
	. <u>50</u> %	Strength:	NOC / COH	stiff	_		
ORG:	: <u><1 </u> % STN SHN ODR PRD NA Other:	Upper Contact:	SHP GRD DIF SME	: NA			
Observed.	gravelly sandy silty CLAY with obvious r	oots <1%			_		
	g,,,						
1 FT BGS						1.0'	1.8
Material:	Natural Fill Uncertain	Intrument #1: T	ype: Rea	iding			
Color:	MUN GSA I Brown			ding			
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR N	Ą			
Texture: GVL:	ANG SUB RND NA	Plasticity:	NON LOW MED H	IGH NA			
SND	25 % ANG SUB RND NA	Moisture:	DRY MST WET S	AT NA			
SLT		Cementation:	NON SLT MOD W	EL NA			
CLY		Strength:	NOC / COH	loose	_		
ORG: Observed:	:% STN SHN ODR PRD NA Other:	Upper Contact:	SHP GRD DIF SME	: NA			
Observed.	well graded gravel fill. BOTTOM OF BOR	ING 2.0'			_		
	3 3						
2 FT BGS						2.0'	2.2
Material:	Natural Fill Uncertain	Intrument #1: T	ype:Rea	iding			
Color:	MUN GSA			ding	_		
Coloration:	UNI MTD VAR STN	Sorting:	WEL MOD POR NA				
Texture: GVL:	%ANG SUB RND NA	Plasticity:	NON LOW MED HO				
SND: SLT:		Moisture: Cementation:	DRY MST WET SAN				
CLY		Strength:	NOC / COH	10/			
ORG	<u> </u>	Upper Contact:	SHP GRD DIF SME	. NA	_		
Observed:	STN SHN ODR PRD NA Other:				_		
	1						
Material: Color:	Natural Fill Uncertain MUN GSA		ype:Rea	-			
Color:	UNI MTD VAR STN	Sorting:	ype:Rea WEL MOD POR NA	ding	_		
Texture: GVL:	% ANG SUB RND NA	Plasticity:	NON LOW MED HO				
SND		Moisture:	DRY MST WET SA				
SLT		Cementation:	NON SLT MOD WE	L NA			
CLY		Strength:	NOC / COH		_		
Ohserved:	:% STN SHN ODR PRD NA Other:	Upper Contact:	SHP GRD DIF SME	: NA			
Observed:	OTTA OTTA ODN FRO INA OTTE.				-		
I	<u> </u>						

E&E Ove	rburden Borehole Logging	g Form	Location	ID:	R	H-LF	P-27
Client: Project: Site/Area: Project No. Geologist: Signature:	U.S. EPA Habitat for Humanity EB Redwood Hill Lead Paint 002693.6009.01BR Paul Jones	Rig, Drill Bit - Type	tor(s): Paul Jones /Type: Geoprobe 540			Page:	1 of 1
Start Time: Top Depth: Bottom Depth: Finish Time: Recovery: 1: 0 FT BGS	1225 Location Coordinate Ft. Lat 37.7847871969 2 Ft. Long -122.188145032 1250 N/A 2. N/A 3. N/A 4. N	00 RH	Sample ID H-LP-27-0 H-LP-27-1 H-LP-1027-1 H-LP-27-2	Interval 0' 1.0' 1.0' 2.0'	Type S S S S	Depth (Ft)	PID (ppm)
Coloration: Texture: GVL: SND: SLT: CLY:	40 %	Plasticity: No Moisture: DF Cementation: No Strength: NC Upper Contact: SF	Read EL MOD POR NA ON LOW MED HO RY MST WET SA ON SLT MOD WE DC/COH HP GRD DIF SME	GH NA T NA L NA ery stiff		0'	1.24
2 FT BGS Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA I UNI MTD VAR STN % ANG SUB RND NA % ANG SUB RND NA % USCS SYM: % STN SHN ODR PRD NA Other:	Plasticity: NC Moisture: DF Cementation: NC Strength: NC		NA NA		2.0'	2.6
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA UNI MTD VAR STN ANG SUB RND NA % ANG SUB RND NA % USCS SYM: % STN SHN ODR PRD NA Other:	Intrument #2: Type: Sorting: WI Plasticity: NC Moisture: DF Cementation: NC Strength: NC	Read Read EL MOD POR NA ON LOW MED HGH RY MST WET SAT ON SLT MOD WEL DC/COH HP GRD DIF SME	H NA NA NA			
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA UNI MTD VAR STN % ANG SUB RND NA ANG SUB RND NA M USCS SYM: % STN SHN ODR PRD NA Other:	Plasticity: NC Moisture: DF Cementation: NC Strength: NC		NA NA			

E&E Ove	rburden Borehole Logging	Form Location ID:	RH	1-LF	2 8
Client: Project: Site/Area:	U.S. EPA Habitat for Humanity EB Redwood Hill Lead Paint	Date: 6/16/2009 Drilling Company: Operator(s): Paul Jones	_	Page:	1 of 1
Project No.	002693.6009.01BR	Rig/Type: Geoprobe 5400			
Geologist:	Paul Jones	Drill Bit - Type/Size:			
Signature:		Sample Method: <u>Direct Push Macrocore</u>			
Start Time:	1118 Location Coordinate		Туре	Depth (Ft)	PID (ppm)
Top Depth: Bottom Depth:	Ft. Lat 37.7848808519 2 Ft. Long -122.188301360	RH-LP-28-0 0' 00 RH-LP-28-1 1.0'	S		
Finish Time:	1145	RH-LP-28-2 2.0'	S		
Recovery: 1: _		<u>I/A</u>			
0 FT BGS		· · · · · · · · · · · · · · · · · · ·			
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading	_	0'	1.7
Color:	MUN GSA I Dark Brown	Intrument #2: Type: Reading	-		
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA			
Texture: GVL: SND:	10 % ANG SUB RND NA ANG SUB RND NA	Plasticity: NON LOW MED HGH NA Moisture: DRY MST WET SAT NA			
SIND.		Cementation: NON SLT MOD WEL NA		1.0'	1.6
CLY:	11000 0141	Strength: NOC / COH stiff		1.0	1.0
ORG:		Upper Contact: SHP GRD DIF SME NA	-		
Observed:	STN SHN ODR PRD NA Other:		_		
	silty clay with some gravel and sand, roots BORING 2.0'	s and plant fragments present at <1%. BOTTOM OF			
2 FT BGS	1			2.0'	1.4
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading			
Color:	MUN GSA I	Intrument #2: Type: Reading	-		
Coloration:	UNI MTD VAR STN	Sorting: WEL MOD POR NA			
Texture: GVL:	MANG SUB RND NA	Plasticity: NON LOW MED HGH NA			
SND: SLT:		Moisture: DRY MST WET SAT NA Cementation: NON SLT MOD WEL NA			
CLY:		Strength: NOC / COH			
ORG:		Upper Contact: SHP GRD DIF SME NA	-		
Observed:	STN SHN ODR PRD NA Other:		-		
	1				
Material:	Natural Fill Uncertain	Intrument #1: Type: Reading	_		
Color: Coloration:	MUN GSA UNI MTD VAR STN	Intrument #2: Type: Reading Sorting: WEL MOD POR NA	-		
Texture: GVL:	% ANG SUB RND NA	Plasticity: NON LOW MED HGH NA			
SND:		Moisture: DRY MST WET SAT NA			
SLT:		Cementation: NON SLT MOD WEL NA			
CLY: ORG:		Strength: NOC / COH Upper Contact: SHP GRD DIF SME NA	-		
Observed:	STN SHN ODR PRD NA Other:		_		
	1				
Material: Color:	Natural Fill Uncertain	Intrument #1: Type: Reading	-		
Coloration:	MUN GSA UNI MTD VAR STN	Intrument #2: Type: Reading Sorting: WEL MOD POR NA	-		
Texture: GVL:	%ANG SUB RND NA	Plasticity: NON LOW MED HGH NA			
SND:		Moisture: DRY MST WET SAT NA			
SLT: CLY:		Cementation: NON SLT MOD WEL NA Strength: NOC / COH			
ORG:		Upper Contact: SHP GRD DIF SME NA	-		
Observed:	STN SHN ODR PRD NA Other:		_		
	1		11		

E&E Ove	rburden Borehole Logging	g Form	Locatio	n ID:	R	H-LF	P-29
Client: Project: Site/Area: Project No.	U.S. EPA Habitat for Humanity EB Redwood Hill Lead Paint 002693.6009.01BR	Op	Date: 6/16/2009 Company: erator(s): Paul Jones Rig/Type: Geoprobe 54	00	_	Page:	1 of 1
Geologist: Signature:	Paul Jones	Drill Bit - T	· · · · · · · · · · · · · · · · · · ·				
Start Time: Top Depth: Bottom Depth: Finish Time: Recovery: 1: _ 0 FT BGS Material: Color:	1152 Location Coordinate Ft. Lat 37.7848601977 2 Ft. Long -122.1880983186 1220 N/A 2. N/A 3. N/A 4. N Natural Fill Uncertain MUD GSA I Dark Brown	Intrument #1: Ty	·	Interval 0' 1.0' 2.0'	Type S S S	Depth (Ft)	PID (ppm)
Coloration: Texture: GVL: SND: SLT: CLY:	UNI MTD VAR STN 5 % ANG SUB RND NA 5 % ANG SUB RND NA 40 %	Sorting: Plasticity: Moisture: Cementation: Strength: Upper Contact:	WEL MOD POR NAME OF THE NON LOW MED HORY MST WET SAME OF THE NOC / COH SHP GRD DIF SME	A IGH NA AT NA EL NA very stiff	-	1.0'	4.3
2 FT BGS Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA I UNI MTD VAR STN % ANG SUB RND NA % ANG SUB RND NA % USCS SYM: % USCS SYM: % STN SHN ODR PRD NA Other:	Sorting: Plasticity: Moisture: Cementation: Strength:		GH NA T NA EL NA		2.0'	3.9
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA UNI MTD VAR STN % ANG SUB RND NA M ANG SUB RND NA M USCS SYM: M STN SHN ODR PRD NA Other:	Intrument #2: Ty Sorting: Plasticity: Moisture: Cementation: Strength:	ype:Rea ype:Rea WEL MOD POR NA NON LOW MED HO DRY MST WET SA NON SLT MOD WE NOC / COH SHP GRD DIF SME	ding C GH NA T NA EL NA			
Material: Color: Coloration: Texture: GVL: SND: SLT: CLY: ORG: Observed:	Natural Fill Uncertain MUN GSA UNI MTD VAR STN %ANG SUB RND NA MARCHAR SUB RND NA WARE SUB RND NA WA	Intrument #2: Ty Sorting: Plasticity: Moisture: Cementation: Strength:	·	GH NA T NA :L NA	-		

E&E Ove	erburden Borehole Logging	Form Location ID: R	H-LP-30
Client: Project: Site/Area: Project No. Geologist: Signature:	U.S. EPA Habitat for Humanity EB Redwood Hill Lead Paint 002693.6009.01BR Paul Jones	Date: 6/16/2009 Drilling Company: Paul Jones Rig/Type: Geoprobe 5400 Drill Bit - Type/Size: Sample Method: Direct Push Macrocore	Page: <u>1 of 1</u>
Start Time: Top Depth: Bottom Depth: Finish Time: Recovery: 1: OFT BGS Material: Color: Coloration: Texture: GVL: SND SLT CLY: ORG Observed:	1100 N/A 2. N/A 3. N/A 4. N Natural Fill Uncertain (MUD) GSA I Yellowish Brown UNI MTD VAR STN 70 % ANG SUB RND NA 15 % ANG SUB RND NA 10 % 5 % USCS SYM: GW	RH-LP-30-0 0' S	Depth PID (Ft) (ppm)
1 FT BGS Material: Color: Coloration: Texture: GVL: SND SLT: CLY: ORG	Natural Fill Uncertain MUD GSA I Dark Brown UNI MTD VAR STN 5 % ANG SUB RND NA 5 % ANG SUB RND NA 30 % 58 % USCS SYM: CL	Intrument #1: Type: Reading Rea	1.0' 0.19
2 FT BGS Material: Color: Coloration: Texture: GVL: SND SLT CLY ORG Observed: Material: Color: Coloration: Texture: GVL: SND SLT CLY ORG Observed:	Natural Fill Uncertain MUN GSA UNI MTD VAR STN % ANG SUB RND NA % ANG SUB RND NA % USCS SYM: % STN SHN ODR PRD NA Other: Natural Fill Uncertain MUN GSA UNI MTD VAR STN % ANG SUB RND NA % ANG SUB RND NA % ANG SUB RND NA % USCS SYM: % USCS SYM:	Intrument #1: Type:	2.0' 0.32

D Photographs

Superfund Technical Assessment and Response Team

Redwood Hills Property, Targeted Brownfields Assessment, Oakland, California

E&E Project. No.: 002693.6009.01BR

TDD No: TO6-09-09-05-0002 Contract No. EP-S5-08-01



Date: 6/16/09

Direction: Southeast

Photographer: David N. Ellis

Description: General site view from the northwest property corner facing southeast.



PHOTO 2

Date: 6/16/09

Direction: West

Photographer: David N. Ellis

Description: General site view from the southeast property corner facing west.



PHOTO 3

Date: 6/16/09

Direction: North

Photographer: David N. Ellis

Description: View of west property boundary. Note: automotive repair shop located immediately west of the property.

Superfund Technical Assessment and Response Team

Redwood Hills Property, Targeted Brownfields Assessment, Oakland, California

E&E Project. No.: 002693.6009.01BR



TDD No: TO6-09-09-05-0002 Contract No. EP-S5-08-01

PHOTO 4

Date: 6/17/09

Direction: West

Photographer: David N. Ellis

Description: View of boring location RH-UST-09 located within the former underground storage tank hold area.



PHOTO 5

Date: 6/19/09

Direction: East

Photographer: David N. Ellis

Description: View of direct push activity at

boring location RH-UST-10.



PHOTO 6

Date: 6/19/09

Direction: East

Photographer: David N. Ellis

Description: View of direct push activity at boring location RH-UST-16. Note: former service station pump island adjacent to boring

location.

Superfund Technical Assessment and Response Team

Redwood Hills Property, Targeted Brownfields Assessment, Oakland, California

E&E Project. No.: 002693.6009.01BR



TDD No: TO6-09-09-05-0002 Contract No. EP-S5-08-01

PHOTO 7

Date: 6/16/09

Direction: Down

Photographer: David N. Ellis

Description: View of the former service station pump island adjacent to boring location

RH-UST-16.



PHOTO 8

Date: 6/17/09

Direction: South

Photographer: David N. Ellis

Description: View of direct push activity at

boring location RH-AR-20.



PHOTO 9

Date: 6/16/09

Direction: West-southwest

Photographer: David N. Ellis

Description: View of direct push activity at boring location RH-AAR-01. Note: door with chipping paint adjacent to boring location.

Superfund Technical Assessment and Response Team

Redwood Hills Property, Targeted Brownfields Assessment, Oakland, California

E&E Project. No.: 002693.6009.01BR



TDD No: TO6-09-09-05-0002 Contract No. EP-S5-08-01

PHOTO 10

Date: 6/18/09

Direction: Down

Photographer: David N. Ellis

Description: View of direct push soil core

during lithologic logging.



PHOTO 11

Date: 6/18/09

Direction: East

Photographer: David N. Ellis

Description: Collection of soil samples for

laboratory analysis.



PHOTO 12

Date: 6/18/09

Direction: Down

Photographer: David N. Ellis

Description: Field screening for organic

vapors

E Laboratory Analysis Data Validation Reports

Tier 1 Validation

Site Name: Habitat Eastbay Redwood Hills
TDD Number: 09-09-05-0002

Laboratory(s): Test America

Lab Project Number: G9F190344,
G9F230303, & G9F230304

Sampling Dates: 6/16/09 thru 6/19/09

Analytical Method(s): BTEX/TPH as
Gasoline by EPA 5035/8260B

Location: Oakland, CA
Project Number: 002693.6009.01BR

Lab Project Number: G9F190344,
G9F230303, & G9F230304

Sample Matrix: Soil & Water

Data Reviewer: Mindy Song

The data were reviewed following guidelines specified in the Draft EPA Region 9 Quality Assurance Office Guidance, *Region 9 Superfund Data Evaluation/Validation Guidance* (R9QA/006.1, dated December 2001).

Reviewer (Signature):

PACKAGE IDENTIFICATION

Date: 8/6/09

In the table below, list each data package by Package ID, sample ID, and Analytical Method:

Package ID	Sample ID	Analytical Method	
COPIONALA	NY 40 010 0 DI 40 1010 0 5 DY 40 010 10	DTEV/CDH or Corolling by EDA	
G9F190344	RH-AS-019-8, RH-AS-1018-0.5, RH-AS-018-10,	BTEX/TPH as Gasoline by EPA 5035/8260B	
	RH-AS-019-2, RH-AS-019-4, RH-AS-018-0.5,	3033/8200B	
	RH-AS-018-2, RH-AS-018-8, RH-AS-019-0.5,		
	RH-AS-019-10, RH-AS-018-4, RH-RB-01-		
	D61609, RH-UST-04-8, RH-AR-1020-0.5, RH-		
	AR-020-2, RH-AR-024-4, RH-UST-04-2, RH-		
	AR-024-0.5, RH-AR-020-8, RH-UST-04-4, RH-		
	UST-04-0.5, RH-RB-02-061709, RH-AR-1022-2,		
•	RH-AR-023-4, RH-AR-022-8, RH-AR-021-8,		
	RH-AR-022-4, & RH-AR-021-2	DESTRUCTION OF STATE	
G9F230303	RH-UST-1016-4, RH-UST-12-0.5, RH-UST-16-	BTEX/TPH as Gasoline by EPA	
	0.5, RH-UST-10-4, RH-UST-10-8, RH-UST-10-	5035/8260B	
	10, RH-UST-10-2, RH-UST-10-0.5, RH-UST-12-		
	10, RH-UST-09-0.5, RH-UST-1009-0.5, RH-UST-		
	09-10, RH-UST-09-2, RH-UST-09-4, RH-UST-		
	09-8, RH-UST-16-10, RH-UST-12-2, RH-UST-		
	16-2, RH-UST-15-8, RH-UST-16-8, RH-UST-16-		
	4, RH-UST-12-4, & RH-UST-12-8		
G9F230304	RH-UST-15-0.5, RH-UST-15-2, RH-UST-15-10,	BTEX/TPH as Gasoline by EPA	
	RH-UST-15-4, RH-RB04-061909, RH-UST-07-4,	5035/8260B	
	RH-UST-07-10, RH-UST-07-2, RH-UST-07-8,		
	RH-UST-11-10, RH-UST-11-0.5, RH-UST-11-2,		
	RH-UST-17-0.5, RH-UST-17-2, RH-UST-17-4,		
	RH-UST-17-8, RH-UST-17-10, RH-UST-08-0.5,		
	RH-UST-08-2, RH-UST-08-4, RH-UST-08-8,		
	RH-UST-08-10, RH-UST-14-0.5,& RH-UST-14-2		

Note(s):

Tier 1 Validation

Site Name: Habitat Eastbay Redwood Hills Location: Oakland, CA

TDD Number: 09-09-05-0002 Project Number: 002693.6009.01BR

1. COMPLETENESS REVIEW BY DATA PACKAGE

Х	X	X	Package Inventory
X	X	X	Case Narrative
X	X	X	Data Summary Sheets
Х	X	X	Chain-of-Custody Records
			QC Summary Sheets including (if applicable to the method):
0	0	0	-Matrix Spike/Matrix Spike Duplicate Summary
X	X	X	-Laboratory Control Sample Summary
*	X	X	-Preparation/Method Blank Summary
X	X	X	-Instrument Performance Data Summary
X	X	*	-Initial and Continuing Calibration Data Summary
X	X	X	-GC/MS Tuning and Mass Calibration
Х	X	X	-Surrogate Compound Recovery Summary
Х	*	X	-Internal Standard Area Summary
NR	NR	NR	-CRDL Standard Results
NR	NR	NR	-ICP Interference Check Sample Results
NR	NR	NR	-ICP Serial Dilutions
NR	NR	NR	-ICP Inter-element Correction Factors
NR	NR	NR	-ICP Linear Ranges
			-Method of Standard Addition Results
			Raw Data (for calibration, quality control and field samples if applicable to the method):
X	X	x	-Chromatograms
X	X	X	-Reconstructed Ion Current (RIC) Chromatograms
X	X	X	-GC Quantitation Reports
X	X	X	-Raw and Enhanced Mass Spectra
X	X	X	-Reference Mass Spectra for Target Compounds
NR	NR	NR .	-Mass Spectral Library Search for TICs
X	X	X	-DFTPP and/or BFB mass spectra and mass listings
NR	NR	NR	-DDT and Endrin Degradation Check Data
X	X	X	-Instrument Print Outs
X	x	X	-Logbook and worksheet pages
X	X	X	-Percent Solids Determination
NR	NR	NR	-List of Instrument Detection Limits
X	X	X	-Sample Preparation/Extraction Logs
X	X	X	-Analysis Run Logs

Inventory Code:

X Included: no problems
O Not Included and/or Not Available

Not RequiredIncluded if required: problems noted in review

Tier 1 Validation

Site Name:	Location:	
Project TDD Number:	PAN:	

2. HOLDING TIMES AND CUSTODY

Instructions: Review chain of custody forms against laboratory reported information, presence of appropriate signatures, sample condition upon receipt by the laboratory, and sample preservation. Also review if method holding times were met.

For SDG G9F190344, the analytical holding times were met.

For SDG G9F230303, due to an auto sampler malfunction, following samples were analyzed three days past the holding time. Sample RH-UST-09-8, RH-UST-16-10, RH-UST-12-2, RH-UST-16-2, RH-UST-15-8, RH-UST-16-8, RH-UST-16-4, RH-UST-12-4, & RH-UST-12-8. The detected results were qualified as estimated (J) and the non-detected results were qualified as estimated (UJ).

For SDG G9F230304, the analytical holding time was met. For sample RH-UST-08-08, the data from the initial analysis on 7/1/09 should be reported.

3. QA REVIEWS

Instructions: Review all Quality Control Summaries including blanks, laboratory control samples, matrix spike/matrix spike duplicate, etc. Use criteria specified in EPA Functional Guidelines and in the Sample and Analysis Plan if applicable.

Blanks: No target analyte was detected above the reporting limit in the method blanks, RH-RB-02-061709, and RH-RB04-061909. However, a trace amount (0.33ug/L) of Toluene was found in the RH-RB-01-D61609. Finding does not require qualification since no samples from these SDGs were collected on 6/16/09.

LCS: The recoveries of LCSs were within the control limit.

MS/MSD: There was insufficient sample volume to prepare a MS/MSD analysis from SDG G9F190344, SDG G9F230303, and SDG G9F230304, therefore, a sample with lab ID G9F190315-003 was used for MS/MSD analysis. The recoveries were within the control limit.

Initial and Continuing Calibration Data Summary: BTEX and TPH as Gasoline standards were used. Percent RSDs and percent differences were within the control limits except for the continuing gasoline calibration analyzed for sample RH-UST-08-08 in SDG G9F230304. The percent difference value for TPH as gasoline in the closing continuing gasoline calibration was 26% and the detected TPH (unknown hydrocarbons) result in RH-UST-08-08 was qualified estimated (J).

GC/MS Tuning and Mass Calibration: GC/MS Tuning Criteria was acceptable and BFB has been run for every 12 hours of sample analysis per instrument.

Surrogate Recovery Summary: The surrogate recoveries were within the control limits.

Internal Standard Area Summary: The internal standard areas except sample RH-UST-1016-4 were within the range of 50% to 200% of the area for the continuing calibration. Since the

Tier 1 Validation

Site Name:	Location:	(
Project TDD Number:	PAN:			

internal standard areas in sample RH-UST-1016-4 were between 10% and 50% of the value, the detected results were qualified as estimated (J) and the non-detected results were qualified as estimated (UJ).

4. FIELD DUPLICATE ANALYSES

Instructions: Calculate the Relative Percent Difference between field duplicate pairs and report based on control criteria listed in the Sample and Analysis Plan.

Analyte, ug/kg	RH-AS-018-0.5	RH-AS-1018-0.5	RPD (%)
Benzene	0.46	0.58	23
Toluene	<3.0	<3.3	0
Ethylbenzene	<3.0	<3.3	0
m+p- Xylenes	<3.0	<3.3	0
o-Xylene	<3.0	<3.3	0
TPH as Gasoline	<600	<670	0

Analyte, ug/kg	RH-UST-09-0.5	RH-UST-1009-0.5	RPD (%)
Benzene	0.46	<2.4	Not Calculated
Toluene	<1.4	<2.4	0
Ethylbenzene	<1.4	<2.4	0
m+p- Xylenes	<1.4	<2.4	0
o-Xylene	<1.4	<2.4	0
TPH as Gasoline	<270	<470	0

Analyte, ug/kg	RH-UST-16-4	RH-UST-1016-4	RPD (%)
Benzene	0.46	<2.0	Not Calculated
Toluene	<2.9	0.85	Not Calculated
Ethylbenzene	<2.9	<2.0	0
m+p- Xylenes	<2.9	<2.0	0
o-Xylene	<2.9	0.34	0
TPH as Gasoline	<570	<400	0

The RPD was within the control limit (less than 25%).

Tier 1 Validation

Site Name: Location: Project TDD Number: PAN:

5. OVERALL DATA QUALITY

Instructions: Generally assess the overall data quality. Perform random checks of reported results against raw data and of raw data for interference problems and/or system control problems (e.g., baseline anomalies, baseline drifts, etc.).

Sample RH-AR-020-8

Benzene: ((9782) (50 ug/kg)) / ((694615) (1.67485)) =0.4204 ug/Kg (0.4204 ug/kg) (5 /6.01) (100/88) = 0.39745 ug/kg. Lab reported 0.40 ug/kg.

Sample RH-UST-09-8

Benzene: ((103522) (50 ug/kg)) / ((811334) (1.67485)) = 3.80914 ug/kg (3.80914 ug/kg) (5/8.45) (100/86) = 2.62ug/kg. Lab reported 2.6ug/kg. m+p- Xylene: ((77556) (50 ug/kg)) / ((688647) (0.73366)) = 7.67527ug/kg. (7.67527 ug/kg) (5/8.45) (100/86) = 5.28ug/kg. Lab reported 5.3ug/kg. o-Xylene: ((24559) (50 ug/kg)) / ((688647)(0.70622)) = 2.5249 ug/kg. (2.5249 ug/kg) (5/8.45) (100/86) = 1.737ug/kg. Lab reported 1.7 ug/kg. Unknown hydrocarbon**: (383209668) / (90169) = 4249.90 ug/kg. (4249.90 ug/kg) (43/6.84) (5/0.86) (100/86) = 180620 ug/kg. Lab reported 180000 ug/kg. **: The chromatogram indicated the presence of hydrocarbons (old and degraded gasoline pattern)in the gasoline range and the reported result was quantitated against the gasoline standard.

Sample RH-UST-08-8

Benzene: ((66524) (50 ug/kg)) / ((813736) (1.67485)) = 2.44056 ug/kg (2.44056 ug/kg) (5/8.07) (100/85) = 1.77896ug/kg. Lab reported 1.8ug/kg. Unknown hydrocarbon**: (252626087) / (35452) = 7125.86 ug/kg. (7125.86 ug/kg) (5/8.07) (100/85) = 5194 ug/kg. Lab reported 5300 ug/kg. **: The chromatogram indicated the presence of hydrocarbons (old and degraded gasoline pattern)in the gasoline range and the reported result was quantitated against the gasoline standard.

The data from SDG G9F190344 were acceptable for use. The data from SDG G9F230303 were acceptable for use with qualification. The data from SDG G9F230304 were acceptable for use with qualification.

Attached are reviewed summary tables.

Tier 1 Validation

Site Name: Habitat Eastbay Redwood Hills
TDD Number: 09-09-05-0002

Laboratory(s): Test America

Lab Project Number: G9F190315 &
G9F230305

Sampling Dates: 6/16/09 thru 6/18/09

Analytical Method(s): BTEX/TPH as
Gasoline by EPA 5035/8260B

Location: Oakland, CA
Project Number: 002693.6009.01BR

Lab Project Number: G9F190315 &
G9F230305

Sample Matrix: Soil & Water

Data Reviewer: Mindy Song

The data were reviewed following guidelines specified in the Draft EPA Region 9 Quality Assurance Office Guidance, *Region 9 Superfund Data Evaluation/Validation Guidance* (R9QA/006.1, dated December 2001).

Reviewer (Signature):

Date: 8/6/09

In the table below, list each data package by Package ID, sample ID, and Analytical Method:

PACKAGE IDENTIFICATION

Package ID	Sample ID	Analytical Method
COPIONALE	DYV A D OL 4 DIL 4 D OL 2 DIL 4 AD OL 05	BTEX/TPH as Gasoline by EPA
G9F190315	RH-AAR-01-4, RH-AAR-03-2, RH-AAR-03-0.5, RH-AAR-02-4, RH-AAR-1002-0.5, RH-AAR-03-	5035/8260B
	4, RH-AAR-01-2, RH-AAR-02-2, RH-AAR-01-	3033/8200B
	0.5, RH-AAR-02-0.5, RH-AR-020-0.5, RH-AR-	
-	020-4, RH-AR-024-8, RH-UST-04-10, RH-AR-	-
	023-0.5, RH-AR-024-2, RH-AR-1024-4, RH-AR-	
	022-0.5, RH-AR-022-2, RH-AR-023-8, RH-AR-	
	023-2, RH-AR-021-0.5, & RH-AR-021-4	
G9F230305	RH-UST-14-4, RH-UST-14-8, RH-UST-14-10,	BTEX/TPH as Gasoline by EPA
	RH-UST-1014-8, RH-UST-06-0.5, RH-UST-06-2,	5035/8260B
	RH-UST-06-4, RH-UST-06-8, RH-UST-06-10,	
	RH-UST-11-8, RH-UST-1011-0.5, RH-UST-05-	
	10, RH-UST-05-8, RH-UST-05-4, RH-UST-05-	
	0.5, RH-UST-05-2, RH-UST-11-4, RH-UST-	1
	1005-0.5, RH-RB03-061809, RH-UST-1007-0.5,	
	RH-UST-07-0.5, RH-UST-13-0.5, RH-UST-1013-	
	& KH-US1-13-10	
	0.5, RH-UST-13-2, RH-UST-13-4, RH-UST-13-8, & RH-UST-13-10	

Note(s):

Tier 1 Validation

Site Name: Habitat Eastbay Redwood Hills Location: Oakland, CA

TDD Number: 09-09-05-0002 Project Number: 002693.6009.01BR

1. COMPLETENESS REVIEW BY DATA PACKAGE

Х	X	Package Inventory
X	X	Case Narrative
X	X	Data Summary Sheets
*	*	Chain-of-Custody Records
		QC Summary Sheets including (if applicable to the method):
Х	0	-Matrix Spike/Matrix Spike Duplicate Summary
X	X	-Laboratory Control Sample Summary
X	X	-Preparation/Method Blank Summary
X	X	-Instrument Performance Data Summary
X	*	-Initial and Continuing Calibration Data Summary
X	X	-GC/MS Tuning and Mass Calibration
X	X	-Surrogate Compound Recovery Summary
X	X	-Internal Standard Area Summary
NR	NR	-CRDL Standard Results
NR	NR	-ICP Interference Check Sample Results
NR	NR	-ICP Serial Dilutions
NR	NR	-ICP Inter-element Correction Factors
NR	NR	-ICP Linear Ranges
		-Method of Standard Addition Results
		Raw Data (for calibration, quality control and field samples if applicable to the method):
X	X	-Chromatograms
X	X	-Reconstructed Ion Current (RIC) Chromatograms
X	X	-GC Quantitation Reports
X	X	-Raw and Enhanced Mass Spectra
X	X	-Reference Mass Spectra for Target Compounds
NR	NR	-Mass Spectral Library Search for TICs
X	X	-DFTPP and/or BFB mass spectra and mass listings
NR	NR	-DDT and Endrin Degradation Check Data
X	X	-Instrument Print Outs
X	X	-Logbook and worksheet pages
X	X	-Percent Solids Determination
NR	NR	-List of Instrument Detection Limits
X	X	-Sample Preparation/Extraction Logs
X	X	-Analysis Run Logs

Inventory Code:

X Included: no problems

O Not Included and/or Not Available

NR Not Required Included if required: problems noted in

Tier 1 Validation

Site Name:	Location:
Project TDD Number:	PAN:

2. HOLDING TIMES AND CUSTODY

Instructions: Review chain of custody forms against laboratory reported information, presence of appropriate signatures, sample condition upon receipt by the laboratory, and sample preservation. Also review if method holding times were met.

For SDG G9F190315, the analytical holding times were met. Sample RH-AR-024-8, RH-AAR-020-0.5 MS, and RH-AAR-020-0.5 MSD were not reported due to an auto sampler malfunction. A reanalysis was conducted, but the injection was a poor purge and not reported. There was no sample remaining for reanalysis.

For SDG G9F230305, the analytical holding time was met for the initial analysis. Re-analysis for samples 1 through 18, 20 through 27 was conducted due to a low recovery of TPH as gasoline in the continuing calibration standard after the holding time had expired. Both sets of data were reported but the initial analysis should be used for reporting since TPH as gasoline was not detected in the samples and was within the holding time.

3. QA REVIEWS

Instructions: Review all Quality Control Summaries including blanks, laboratory control samples, matrix spike/matrix spike duplicate, etc. Use criteria specified in EPA Functional Guidelines and in the Sample and Analysis Plan if applicable.

Blanks: No target analyte was detected above the reporting limit in the method blanks and the rinsate blank (RH-RB03-061809). However, a trace amount (0.33ug/L) of Toluene was found in the RH-RB-01-D61609. Finding does not require qualification since no Toluene was detected in the samples collected on 6/16/09.

LCS: The recoveries of LCSs were within the control limit.

MS/MSD: For SDG G9F190315, sample RH-AAR-03-0.5 was used for MS/MSD analysis and all recoveries were within the control limits. For SDG G9F230305, there was insufficient volume sample to prepare a MS/MSD analysis with these batches.

Initial and Continuing Calibration Data Summary: BTEX and TPH as Gasoline standards were used. Percent RSDs and percent differences (%D) were within the control limits except for the continuing gasoline calibration analyzed for samples with Lab ID SDG G9F230305-1 through 18, and 20 through 27. TPH as gasoline was not detected in the samples and the results of reanalysis confirmed the initial results for all samples. Both data sets were reported but the initial results should be used for reporting since they were analyzed within the holding time. Qualification was not required since no TPH was detected in the samples.

GC/MS Tuning and Mass Calibration: GC/MS Tuning Criteria was acceptable and BFB has been run for every 12 hours of sample analysis per instrument.

Surrogate Recovery Summary: The surrogate recoveries were within the control limits.

Tier 1 Validation

Site Name:	Location:
Project TDD Number:	PAN:

Internal Standard Area Summary: The Internal standard areas were within the range of 50% to 200% of the area for the continuing calibration.

4. FIELD DUPLICATE ANALYSES

Instructions: Calculate the Relative Percent Difference between field duplicate pairs and report based on control criteria listed in the Sample and Analysis Plan.

Analyte, ug/kg	RH-AAR-02-0.5	RH-AAR-1002-0.5	RPD (%)
Benzene	0.34	0.37	8
Toluene	<2.2	<2.4	0
Ethylbenzene	<2.2	<2.4	0
m+p- Xylenes	<2.2	<2.4	0
o-Xylene	<2.2	<2.4	0
TPH as Gasoline	<430	<480	0

Analyte, ug/kg	RH-UST-14-8	RH-UST-1014-8	RPD (%)
Benzene	0.40	0.36	11
Toluene	<2.0	<1.9	0
Ethylbenzene	<2.0	<1.9	0
m+p- Xylenes	<2.0	<1.9	0
o-Xylene	<2.0	<1.9	0
TPH as Gasoline	<340	<370	0

Analyte, ug/kg	RH-UST-05-0.5	RH-UST-1005-0.5	RPD (%)
Benzene	0.40	0.63	45*
Toluene	<2.9	0.85	Not Calculated
Ethylbenzene	<2.9	<2.0	0
m+p- Xylenes	<2.9	<2.0	0
o-Xylene	<2.9	0.34	0
TPH as Gasoline	<570	<400	0

^{*:} The RPD was outside of control limit (greater than 25%) and the detected benzene results in SDG G9F230305 were qualified as estimated (J).

Tier 1 Validation

Site Name:	Location:	
Project TDD Number:	PAN:	

Analyte, ug/kg	RH-UST-07-0.5	RH-UST-1007-0.5	RPD (%)
Benzene	0.39	0.40	3
Toluene	<2.0	<1.9	0
Ethylbenzene	<2.0	<1.9	0
m+p- Xylenes	<2.0	<1.9	0
o-Xylene	<2.	<1.9	0
TPH as Gasoline	<410	<390	0

Analyte, ug/kg	RH-UST-13-0.5	RH-UST-1013-0.5	RPD (%)
Benzene	0.36	<2.1	Not Calculated
Toluene	<2.6	<2.1	0
Ethylbenzene	<2.6	<2.1	0
m+p- Xylenes	<2.6	<2.1	0
o-Xylene	<2.6	<2.1	0
TPH as Gasoline	<520	<420	0

5. OVERALL DATA QUALITY

Instructions: Generally assess the overall data quality. Perform random checks of reported results against raw data and of raw data for interference problems and/or system control problems (e.g., baseline anomalies, baseline drifts, etc.).

Sample RH-AR-021-4

Benzene: ((46360) (50 ug/kg)) / ((598533) (1.67485)) =2.3123 ug/Kg

(2.3123 ug/kg) (5/6.2) (100/89) = 2.095 ug/kg.

Lab reported 2.1 ug/kg.

Sample RH-UST-06-8

Benzene: ((43209) (50 ug/kg)) / ((600136) (1.67485)) = 2.1494 ug/kg (2.1494 ug/kg) (5/7.73) (100/87) = 1.598 ug/kg. Lab reported 1.6ug/kg. m+p- Xylene: ((14221) (50 ug/kg)) / ((548464) (0.73366)) = 1.767ug/kg. (1.767 ug/kg) (5/7.73) (100/87) = 1.314 ug/kg. Lab reported 1.3ug/kg. o-Xylene: ((4182) (50 ug/kg)) / ((548464)(0.70622)) = 0.53984 ug/kg. (0.53984 ug/kg) (5/7.73) (100/87) = 0.401ug/kg. Lab reported 0.4 ug/kg.

The data from SDG G9F190315 were acceptable for use.
The data from SDG G9F230305 were acceptable for use with qualification.

Attached are reviewed summary tables.

F Tables

			(PH 25)	Motor TPH	diesel TAH	as Jine	our ator ge	, tene	,uene (thy	dentene my ye	ie dene ot	Hene Tylenes,
	Decidential CUUS! (mg/l	-m\	/ *			Y V			/ (tr	<u> </u>	<u> </u>	
	Residential CHHSL (mg/l Residential USEPA RSL (1.1	5,000	5.7	9,200	5,300	600
	Residential ESL Shallow	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3
Sample Location	Sample ID	Sample Date		TP					ВТ	EX		
RH-AAR-01-0.5	RH-AAR-01-0.5	6/16/2009	4.6 J	57 F1,J	<0.49 U	<0.49 U	0.00083	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0048 U
RH-AAR-01-2	RH-AAR-01-2	6/16/2009	<23 J,Q7,U	<5.7 J,Q7,U	<0.5 U	<0.5 U	0.00047	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	<0.005 U
RH-AAR-01-4	RH-AAR-01-4	6/16/2009	28 F1,J,Q7	<5.7 J,Q7,U	<0.49 U	<0.49 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.004 U
RH-AAR-02-0.5	RH-AAR-02-0.5	6/16/2009	160 F1,J	8.1 F1,J	<0.43 U	<0.43 U	0.00034	<0.0022 U	<0.0022 U	<0.0022 U	<0.0022 U	<0.0044 U
RH-AAR-02-0.5 (Dup)	RH-AAR-1002-0.5	6/16/2009	100 F1,J	5.4 C1,F1,J	<0.48 U	<0.48 U	0.00037	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0048 U
RH-AAR-02-2	RH-AAR-02-2	6/16/2009	<24 U	<6 U	<0.43 U	<0.43 U	0.0017	<0.0021 U	<0.0021 U	<0.0021 U	<0.0021 U	<0.0042 U
RH-AAR-02-4	RH-AAR-02-4	6/16/2009	<24 U	<5.9 U	<0.4 U	<0.4 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.004 U
RH-AAR-03-0.5	RH-AAR-03-0.5	6/16/2009	37 F1,J	<5.6 U	<0.44 U	<0.44 U	0.00085 J	<0.0022 U	<0.0022 U	<0.0022 U	<0.0022 U	<0.0044 U
RH-AAR-03-2	RH-AAR-03-2	6/16/2009	<24 U	<5.9 U	<0.47 U	<0.47 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0048 U
RH-AAR-03-4	RH-AAR-03-4	6/16/2009	13 C1,F1,J	<5.9 U	<0.39 U	<0.39 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.004 U
RH-UST-04-0.5	RH-UST-04-0.5	6/17/2009	26	<12 U	<0.56 U	<0.56 U	<0.0028 U	<0.0028 U	<0.0028 U	<0.0028 U	<0.0028 U	<0.0056 U
RH-UST-04-2	RH-UST-04-2	6/17/2009	40	<12 U	<0.49 U	<0.49 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0024 U	<0.0048 U
RH-UST-04-4	RH-UST-04-4	6/17/2009	25 F1,J	<12 U	<0.37 U	<0.37 U	0.0005 J	<0.0019 U	<0.0019 U	<0.0019 U	<0.0019 U	<0.0038 U
RH-UST-04-8	RH-UST-04-8	6/17/2009	13 C1,F1,J	<12 U	<0.54 U	<0.54 U	0.0022	0.00093	<0.0027 U	<0.0027 U	<0.0027 U	<0.0054 U
RH-UST-04-10	RH-UST-04-10	6/17/2009	<22 U	<11 U	<0.41 U	<0.41 U	0.0011	<0.0021 U	<0.0021 U	<0.0021 U	<0.0021 U	<0.0042 U
RH-UST-05-0.5	RH-UST-05-0.5	6/18/2009	14 A2, A3, C1, F1, J	3.4 A2, A3, C1, J	<0.47 U	<0.47 U	0.0004 J	<0.0023 U	<0.0023 U	<0.0023	<0.0023 U	<0.0046 U

			TPH 25 N	notor TPH?	diesel Tri	as oline United	Ardestron Ber	To To	trene cityl	Dentene mrtyle	ne de ne ort	Aylene Aylene
	Residential CHHSL (mg/k	(g)							·			
	Residential USEPA RSL (mg/kg)					1.1	5,000	5.7	9,200	5,300	600
	Residential ESL Shallow S	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3
Sample Location	Sample ID	Sample Date		TP	Hs	•		•	ВТ	EX		
			27	<11	<0.41	<0.41	0.00063	<0.0028	<0.0028	<0.0028	<0.0028	<0.0056
RH-UST-05-0.5 (Dup)	RH-UST-1005-0.5	6/18/2009	A2, F1, J	U, A2, J	U	U	J.00000	U	U	U	U	U
(Bup)	1	5, 15, 2556	<24	<12	<0.39	<0.39	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-UST-05-2	RH-UST-05-2	6/18/2009	U, A2, J	U, A2, J	U	U	U	U	U	U	U	U
			<24	<12	<0.38	<0.38	0.00041	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-UST-05-4	RH-UST-05-4	6/18/2009	U, A2, J	U, A2, J	U	U	J	U	U	U	U	U
			<24	<12	<0.41	<0.41	0.00062	<0.0021	<0.0021	<0.0021	<0.0021	<0.0042
RH-UST-05-8	RH-UST-05-8	6/18/2009	U, A2, A3, J	U, A2, A3, J	J	U	J	U	U	U	U	U
			<23	<5.8	<0.54	<0.54	0.00095	0.00088	<0.0027	<0.0027	<0.0027	<0.0054
RH-UST-05-10	RH-UST-05-10	6/18/2009		A2, A3, J, U	U	U	J	J	U	U	U	U
			140	<5.8	<0.41	<0.41	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0042
RH-UST-06-0.5	RH-UST-06-0.5	6/18/2009	A2, F1, J	A2, J, U	U	U	U	U	U	U	U	U
DI 1107 00 0	DIL 1107 00 0	0/40/0000	<24	<6	<0.51	<0.51	0.00072	<0.0024	<0.0024	<0.0024	<0.0024	<0.0048
RH-UST-06-2	RH-UST-06-2	6/18/2009	A2, A3, F1, J		U .0.45	U -0.45	0.0040	U .0.004	U -0.0004	U .0.004	U .0.004	U -0.0040
DILLICT OC 4	DILLICT OC 4	C/4.0/2000	23 A2, A3, J	<5.7	<0.45 U	<0.45 U	0.0012	<0.0021 U	<0.0021 U	<0.0021 U	<0.0021 U	<0.0042 U
RH-UST-06-4	RH-UST-06-4	6/18/2009	<23	<5.7	<0.37	<0.37	0.0016	0.0026	0.00053	0.0013	0.0004	0.0017
RH-UST-06-8	RH-UST-06-8	6/18/2009	U, A2, J	U, A2, J	U U	U.37	0.0010	0.0020	J.00033	J.0013	J.0004	J
K11-031-00-0	K11-031-00-0	0/10/2009	<23	<5.7	<0.4	<0.4	0.00095	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-UST-06-10	RH-UST-06-10	6/18/2009	U, A2, J	U, A2, J	U	U U	J.00033	U U	U	U	U	U
	551 55 15	5, 15, 2000	190	<5.7	<0.46	<0.46	0.00039	<0.002	<0.002	<0.002	<0.002	<0.004
RH-UST-07-0.5	RH-UST-07-0.5	6/18/2009	A2, A3, F1, J	U, A2, A3, J, Q4	U	U	J	U	U	U	U	U
			130	<5.7	<0.46	<0.46	0.0004	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-UST-07-0.5 (Dup)	RH-UST-1007-0.5	6/18/2009	A2, A3, F1, J	U, A2, A3, J	U	U	J	U	U	U	U	U
			16	<5.9	< 0.39	<0.39	0.00039	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-UST-07-2	RH-UST-07-2	6/18/2009		U, A2, J, Q2	U	U	J	U	U	U	U	U
			30	<5.8	<0.42	<0.42	0.00063	<0.0021	<0.0021	<0.0021	<0.0021	<0.0042
RH-UST-07-4	RH-UST-07-4	6/18/2009	A2, J	U, A2, J, Q2	U	U	J	U	U	U	U	U
			<24	<6	<0.35	<0.35	0.00041	<0.0017	<0.0017	<0.0017	<0.0017	<0.0034
RH-UST-07-8	RH-UST-07-8	6/18/2009		U, A2, J, Q2	U	U	J	U	U	U	U	U 0.004
DULUCT 07.40	DILLICT OF 40	C/4.0/2002	<24	<6	<0.4	<0.4	0.00074	<0.002	<0.002	<0.002	<0.002	<0.004
RH-UST-07-10	RH-UST-07-10	6/18/2009	U, A2, A3, J		-0.39	U 20	J 0.0027	0.0000	0.00006	U 0030	U 00000	U 0.00470
DU 1161 00 0 5	DU HET OO O E	6/19/2000	210	3.4	<0.38 U	<0.38 U	0.0037	0.00099	0.00086	0.0039	0.00089	0.00479
RH-UST-08-0.5	RH-UST-08-0.5	6/18/2009	A2, F1, J	Az, C1, F1, J	U	U		J	J		J	J

			_									
			TPH 25	Motor TPH	diesel Tri	as dine Juku	our george	nzene	inene Ethyl	Dertene Tr. Tyle	ne thene of	Hene Hylen
	Residential CHHSL (mg/l	kg)							Ť			
	Residential USEPA RSL (1.1	5,000	5.7	9,200	5,300	600
	Residential ESL Shallow	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3
Sample Location	Sample ID	Sample Date		TP	Hs				ВТ	EX		
			<24	<5.9	< 0.32	< 0.32	<0.0016	<0.0016	<0.0016	< 0.0016	<0.0016	< 0.0032
RH-UST-08-2	RH-UST-08-2	6/18/2009	U, A2, J	U, A2, J	U	U	U	U	U	U	U	U
			<24	<5.9	< 0.39	< 0.39	<0.002	< 0.002	< 0.002	<0.002	< 0.002	<0.004
RH-UST-08-4	RH-UST-08-4	6/18/2009	U, A2, J	U, A2, J	U	U	U	U	U	U	U	U
			31	<5.7	<0.37	5.5	0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0036
RH-UST-08-8	RH-UST-08-8	6/18/2009	A2, J, Q7	U, A2, J, Q7	U	J		U	U	U	U	U
			<23	4.1	<3.9	130	0.0064	<0.0021	0.0046	0.0016	<0.0021	0.0016
RH-UST-08-10	RH-UST-08-10	6/18/2009	U, A2, A3, J		U			U		J	U	J
DI 110T 00 0 5	DIL 110T 00 0 5	0/40/0000	84	<5.3	<0.27	<0.27	0.00046	<0.0014	<0.0014	<0.0014	<0.0014	<0.0028
RH-UST-09-0.5	RH-UST-09-0.5	6/19/2009	A3,F1,J	A3,J,U	U 0.47	U 0.47	J	U 0.0004	U	U 00004	U 0004	U 0 00 40
DILLICT OO O E (D)	DILLICT 4000 0 5	C/4.0/2000	84	3.9	<0.47	<0.47	<0.0024	<0.0024	<0.0024	<0.0024 U	<0.0024	<0.0048
RH-UST-09-0.5 (Dup)	RH-UST-1009-0.5	6/19/2009	350	C1,F1,J 7.3	<0.48	<0.48	0.0005	<0.0024	<0.0024	<0.0024	<0.0024	<0.0048
RH-UST-09-2	RH-UST-09-2	6/19/2009	F1	F1	U.46	U.46	0.0003	U.0024	U.0024	U V V V V V V V V V V V V V V V V V V V	U V	U.0046
K11-031-03-2	KII-031-09-2	0/19/2009	43	3	<0.49	0.67	0.00081	<0.0025	<0.0025	<0.0025	<0.0025	<0.005
RH-UST-09-4	RH-UST-09-4	6/19/2009	A3,J	A3,C1,F1,J	U	0.07	J.J	U	U	U	U	U
1111 001 00 4	1411 001 00 4	0/10/2000	170	63	<4.3	180	0.0026	0.0019	0.0027	0.0053	0.0017	0.007
RH-UST-09-8	RH-UST-09-8	6/19/2009	F1	F1	UJ	J	J	J	J	J	J	J
			<25	3.4	<0.27	1.2	0.00034	< 0.0014	< 0.0014	< 0.0014	<0.0014	<0.0028
RH-UST-09-10	RH-UST-09-10	6/19/2009	U	C1,F1,J	U		J	U	U	U	U	U
			3,800	19	< 0.33	< 0.33	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0032
RH-UST-10-0.5	RH-UST-10-0.5	6/19/2009	A3,C2,J	A3,J	U	U	U	U	U	U	U	U
			40	<5.9	<0.42	< 0.42	0.00034	<0.0021	<0.0021	<0.0021	<0.0021	<0.0042
RH-UST-10-2	RH-UST-10-2	6/19/2009		U	U	U	J	U	U	U	U	U
			36	<5.9	<0.32	<0.32	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0032
RH-UST-10-4	RH-UST-10-4	6/19/2009	A3,J	U, A3, J	U	U	U	U	U	U	U	U
			<23	2.9	<0.41	<0.41	0.00088	<0.002	<0.002	<0.002	<0.002	<0.004
RH-UST-10-8	RH-UST-10-8	6/19/2009	U	C1,F1,J	U	U	J	U	U	U	U	U
			<24	<5.9	<0.35	<0.35	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0034
RH-UST-10-10	RH-UST-10-10	6/19/2009	U	U	U	U	U	U	U	U	U	U
DILLIOT 44 0 5	DU HOT 44 0 5	0/40/0000	36	<11	<0.38	<0.38	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-UST-11-0.5	RH-UST-11-0.5	6/18/2009	F1, J, Q7, A2 25	U, A2, J, Q7	-0.41	U -0.41	0.00030	<0.002	<0.002	<0.002	<0.002	<0.004
DH-116T-11 0 E /D\	DH-116T 4044 0 E	6/19/2000	A2, F1, J	<11	<0.41 U	<0.41 U	0.00039	<0.002 U	<0.002	<0.002 U	<0.002 U	<0.004 U
RH-UST-11-0.5 (Dup)	RH-UST-1011-0.5	6/18/2009	A∠, FI, J	U, A2, J	U	U	J	U	U	U	U	U

Residential CHSL (mg/kg) 370 83 83 0.044 2.9 2.3 0.0023 0.0023 0.0023 0.0023 0.0024 0			`					•	•				
Residential USEPA RSL (mg/kg) 370 83 83 0.044 2.9 2.3 2.3 2.3				TRH 25 T	Motor TPH?	S diesel 1911	as dine Unkno	diocation Bet	, tene	liene cityli	Jenzene m. tyle	ne dene	Hene There's
Residential USEPARK mg/sg 370 83 83 0.004 2.9 2.3		Residential CHHSL (mg/k	(g)	<u> </u>						· ·			
Part		Residential USEPA RSL (ı	mg/kg)					1.1	5,000	5.7	9,200	5,300	600
RH-UST-11-2 RH-UST-11-2 6/18/2009 U,A2,J U,A2,J U U U U U U U U U U U U U U U U U U		Residential ESL Shallow S	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3
RH-UST-11-2 RH-UST-11-2 6/18/2009 U,A2,J U,A2,J U U U U U U U U U U U U U U U U U U	Sample Location	Sample ID	Sample Date		TP	Hs	•		•	ВТ	EX	•	
RH-UST-11-2				<25			<0.47	<0.0023	<0.0023			<0.0023	<0.0046
RH-UST-11-4	RH-UST-11-2	RH-UST-11-2	6/18/2009										
RH-UST-11-4	001 112	1111 001 112	0/10/2000	, ,					·			_	
RH-UST-11-8 RH-UST-11-8 6/18/2009 U, A2, J W, A2, D W, A2, J W, A2, J W, A2, J W, A2, J W, A2, D W, A2, J W, A	RH-UST-11-4	RH-UST-11-4	6/18/2009										
Company				<22	6.1	<0.35	< 0.35	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	< 0.0042
RH-UST-11-10 RH-UST-11-10 6/18/2009 U, A2, J U, A2, J U U J U<	RH-UST-11-8	RH-UST-11-8	6/18/2009	U, A2, J	A2, C1, F1, J	U	U	U	U	U	U	U	U
RH-UST-12-0.5 RH-UST-12-0.5 6/19/2009 36 5.8 <0.41 <0.041 <0.00059 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.002 <0.002 <0.002 <0.002 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004 <0.004				<24	<12	<0.36	< 0.36	0.00051	<0.0018	<0.0018	<0.0018	<0.0018	< 0.0036
RH-UST-12-0.5 RH-UST-12-0.5 6/19/2009 A2, F1, J, O7 A2C, F1, J, OF A2C, F1, J,	RH-UST-11-10	RH-UST-11-10	6/18/2009	U, A2, J	U, A2, J	U	U	J	U	U	U	U	U
RH-UST-12-2 RH-UST-12-2 6/19/2009 A2, C1, F1, J U, A2, J U U U U U U U U U U U U U U U U U U				36	5.8	<0.41	<0.41	0.00059	< 0.002	< 0.002	< 0.002	< 0.002	< 0.004
RH-UST-12-2 RH-UST-12-2 6/19/2009 A₂. C1, F1, J U, A₂, J UJ UJ U <	RH-UST-12-0.5	RH-UST-12-0.5	6/19/2009	A2, F1, J, Q7	A2,C1, F1, J, Q7	U	U	J				U	_
RH-UST-12-4 RH-UST-12-4 RH-UST-12-4 RH-UST-12-4 RH-UST-12-4 RH-UST-12-4 RH-UST-12-4 RH-UST-12-4 RH-UST-12-4 RH-UST-12-8 RH-UST-12-8 RH-UST-12-8 RH-UST-12-8 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-13-0.5 RH-UST-13-0.5 RH-UST-13-0.5 RH-UST-13-0.5 RH-UST-13-0.5 RH-UST-13-10								0.00032	<0.0019				
RH-UST-12-4 RH-UST-12-4 6/19/2009 U, A2, J U, A2, J UJ J U J UJ J J J U J UJ J J J U J UJ J J J U J UJ U <th< td=""><td>RH-UST-12-2</td><td>RH-UST-12-2</td><td>6/19/2009</td><td>A2, C1, F1, J</td><td></td><td>UJ</td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td></th<>	RH-UST-12-2	RH-UST-12-2	6/19/2009	A2, C1, F1, J		UJ						_	
RH-UST-12-8 RH-UST-12-8 C C C C C C C C C								0.00036					0.00062
RH-UST-12-8 RH-UST-12-8 6/19/2009 U, A2, J U, A2, J UJ U </td <td>RH-UST-12-4</td> <td>RH-UST-12-4</td> <td>6/19/2009</td> <td>, ,</td> <td></td> <td></td> <td>-</td> <td>J</td> <td></td> <td></td> <td></td> <td></td> <td></td>	RH-UST-12-4	RH-UST-12-4	6/19/2009	, ,			-	J					
RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-12-10 RH-UST-13-0.5 RH-UST-13-10 RH													
RH-UST-12-10 6/19/2009 U, A2, J A2, C1, F1, J U S U S U U U U U U U U U U U U U U U U U U U	RH-UST-12-8	RH-UST-12-8	6/19/2009					_	_		_	_	
Section Sect	DI 110T 40 40	DILLIOT 40 40	0/40/0000				3.4						
RH-UST-13-0.5 RH-UST-13-0.5 6/18/2009 A2, F1, J U, A2, J U U J U <th< td=""><td>RH-UST-12-10</td><td>RH-UST-12-10</td><td>6/19/2009</td><td></td><td></td><td></td><td>0.00</td><td>, ,</td><td>_</td><td></td><td>_</td><td>_</td><td></td></th<>	RH-UST-12-10	RH-UST-12-10	6/19/2009				0.00	, ,	_		_	_	
34 <11 <0.41 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0044 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0044 <0.0044 <0.0042 <0.0044 <0.0042 <0.0042 <0.0042 <0.0042 <0.0042 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.0044 <0.00	DULLICT 42 OF	DILLICT 42 0 F	C/4.0/2000										
H-UST-13-0.5 (Dup) RH-UST-1013-0.5 6/18/2009 A2, F1, J U, A2, J U U U U U U U U U	KH-US1-13-0.5	KH-US1-13-0.5	6/18/2009				_	_					
RH-UST-13-2 RH-UST-13-2 RH-UST-13-2 RH-UST-13-4 RH-UST-13-4 RH-UST-13-4 RH-UST-13-4 RH-UST-13-6 RH-UST-13-8 RH-UST-13-8 RH-UST-13-10 RH-UST-13-10 RH-UST-13-10 RH-UST-14-0.5 RH-UST-14-0.5 RH-UST-14-0.5 RH-UST-14-0.5 RH-UST-14-0.5 RH-UST-13-2 RH-UST-13-2 RH-UST-13-2 RH-UST-13-3 RH-UST-13-3 RH-UST-13-4 RH-UST-13-5 RH-UST-13-5 RH-UST-13-6 RH-UST-13-10 RH-UST	RH-HST-13-0 5 (Dup)	RH-UST-1013-0 5	6/18/2000										
RH-UST-13-2 6/18/2009 U, A2, J A2, C1, F1, J U U U U U U U U U U U U U U U U U U	оот-то-о.о (Dup)	111-001-1013-0.3	0/10/2003					_	_		_	_	
RH-UST-13-4 RH-UST-13-4 6/18/2009 A2, C1, F1, J U, A2, J U U U U U U U U U U U U U U U U U U	RH-UST-13-2	RH-UST-13-2	6/18/2009										
RH-UST-13-4 RH-UST-13-4 6/18/2009 A2, C1, F1, J U, A2, J U U U U U U U U U U U U U U U U U U	1411 001 102	1111 001 102	0/10/2000	, ,					_		_	_	
RH-UST-13-8 RH-UST-13-8 6/18/2009 U, A2, J U, A2, J, Q4, Q6 U U J J U U U U U U U U U U U U U U U	RH-UST-13-4	RH-UST-13-4	6/18/2009										
RH-UST-13-8 RH-UST-13-8 6/18/2009 U, A2, J U, A2, J, Q4, Q6 U U J U U U U U U									<0.0016		<0.0016		<0.0032
RH-UST-13-10 RH-UST-13-10 6/18/2009 C	RH-UST-13-8	RH-UST-13-8	6/18/2009										
RH-UST-13-10 RH-UST-13-10 6/18/2009 U, A2, J U, A2, J U U J U </td <td>-</td> <td></td> <td></td> <td></td> <td><12</td> <td><0.35</td> <td>< 0.35</td> <td>0.00038</td> <td><0.0018</td> <td><0.0018</td> <td><0.0018</td> <td><0.0018</td> <td><0.0036</td>	-				<12	<0.35	< 0.35	0.00038	<0.0018	<0.0018	<0.0018	<0.0018	<0.0036
RH-UST-14-0.5 RH-UST-14-0.5 6/18/2009 A2, A3, F1, J U, A2, A3, J U U J U	RH-UST-13-10	RH-UST-13-10	6/18/2009		U, A2, J	U	U	J		U	U	U	
<23 <12 <0.36 <0.36 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0036				41	<5.4	<0.52	<0.52	0.00051	<0.0027	<0.0027	<0.0027	<0.0027	< 0.0054
	RH-UST-14-0.5	RH-UST-14-0.5	6/18/2009	A2, A3, F1, J	U, A2, A3, J	U	U	J	U	U	U	U	U
RH-UST-14-2 RH-UST-14-2 6/18/2009 U, A2, J U, A2, J U U U U U U U U U				<23	<12	<0.36	<0.36	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	< 0.0036
	RH-UST-14-2	RH-UST-14-2	6/18/2009	U, A2, J	U, A2, J	U	U	U	U	U	U	U	U

					,	,	,	<u>.</u>	,	,	,	,
			RPH 25	Motor TPH ?	s diesel Joh	as oline Union	Ardeathor Bet	, tene	tene	Jerzene mrtyle	ne de ne ort	Hene Hylene
	Residential CHHSL (mg/l	kg)	<u> </u>			<u> </u>			/ V	<u> </u>		
	Residential USEPA RSL ((mg/kg)					1.1	5,000	5.7	9,200	5,300	600
	Residential ESL Shallow	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3
Sample Location	Sample ID	Sample Date		TP	Hs	•		•	ВТ	EX		
			<24	<6	<0.47	< 0.47	<0.002	< 0.002	<0.002	<0.002	<0.002	<0.004
RH-UST-14-4	RH-UST-14-4	6/18/2009		U, A2, A3, J	U	U	U	U	U	U	U	U
			<23	<12	<0.34	<0.34	0.0004	<0.002	<0.002	<0.002	<0.002	<0.004
RH-UST-14-8	RH-UST-14-8	6/18/2009	U, A2, J	U, A2, J	U	U	J	U	U	U	U	U
			<24	<12	<0.38	<0.38	0.00036	<0.0019	<0.0019	<0.0019	< 0.0019	<0.0038
RH-UST-14-8 (Dup)	RH-UST-1014-8	6/18/2009	U, A2, J	U, A2, J	U	U	J	U	U	U	U	U
			<23	<12	< 0.34	< 0.34	0.00036	<0.0018	<0.0018	<0.0018	<0.0018	<0.0036
RH-UST-14-10	RH-UST-14-10	6/18/2009	U, A2, J	U, A2, J	U	U	J	U	U	U	U	U
			38	4	<0.38	<0.38	0.00089	0.001	<0.0019	<0.0019	<0.0019	<0.0038
RH-UST-15-0.5	RH-UST-15-0.5	6/19/2009	J,Q4,Q6,Q7	C1,F1,J,Q4,Q6,Q7	U	U	J	J	U	U	U	U
			<24	<5.9	<0.46	<0.46	0.00035	<0.0023	<0.0023	<0.0023	<0.0023	<0.0046
RH-UST-15-2	RH-UST-15-2	6/19/2009	U	U	U	U	J	U	U	U	U	U
DU HOT 45 4	DU 110T 45 4	0/40/0000	<24	<6	<0.36	<0.36	<0.0018	<0.0018	<0.0018	<0.0018	<0.0018	<0.0036
RH-UST-15-4	RH-UST-15-4	6/19/2009	U <23	U <5.8	<0.34	<0.34	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0034
RH-UST-15-8	RH-UST-15-8	6/19/2009	<23 A3,J,U	<5.8 A3,J,U	<0.34 UJ	<0.34 UJ	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0034 U
KH-US1-13-0	КП-031-13-0	0/19/2009	<23	<5.8	<0.34	0.67	0.00033	<0.0017	<0.0017	<0.0017	<0.0017	<0.0034
RH-UST-15-10	RH-UST-15-10	6/19/2009	U	U U	U	0.07		U	U	U	U	U U
KIT 001 10 10	1411 001 10 10	0/10/2003	48	5.2	<0.45	<0.45	0.00041	<0.0023	<0.0023	<0.0023	<0.0023	<0.0046
RH-UST-16-0.5	RH-UST-16-0.5	6/19/2009	F1,J	C1,F1,J	U	U	J	U	U	U	U	U
		0,10,200	36	7.6	<0.39	<0.39	0.00039	0.0007	0.00038	0.00095	0.00037	0.00132
RH-UST-16-2	RH-UST-16-2	6/19/2009	F1,J	F1,J	U	U	J	J	J	J	J	J
			970	<14	<0.57	<0.57	0.00046	<0.0029	<0.0029	<0.0029	<0.0029	<0.0058
RH-UST-16-4	RH-UST-16-4	6/19/2009		U	UJ	UJ	J	U	U	U	U	U
			690	<16	<0.4	<0.4	<0.0002	0.00085	<0.0002	<0.0002	0.00034	0.00034
RH-UST-16-4 (Dup)	RH-UST-1016-4	6/19/2009	A3,J	U,A3,J	U	U	U	J	U	U	J	J
			<24	17	<0.43	3	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0044
RH-UST-16-8	RH-UST-16-8	6/19/2009	U	F1,J	UJ	J	U	U	U	U	U	U
			<23	5.2	<3.4	270	0.002	<0.0017	0.0006	<0.0017	<0.0017	<0.0034
RH-UST-16-10	RH-UST-16-10	6/19/2009	U	C1,F1,J	UJ	0.46	J	U	J	UJ	UJ	UJ
DIL UCT 47.0.5	DU HET 47 0 5	0/40/0000	67	<5.5	<0.46	<0.46	0.0019	0.0017	0.00079	0.0022	0.00046	0.00266
RH-UST-17-0.5	RH-UST-17-0.5	6/18/2009	<u> </u>	U, J, Q2, Q7, A2	-0.47	-0.47	J 0.0013	J 0.004	J 0.002	0.0024	J 00000	J 00202
DU 11CT 17 2	DU 116T 47 2	6/19/2000	16	<5.9	<0.47	<0.47 U	0.0013	0.001	0.002	0.0031	0.00086	0.00396
RH-UST-17-2	RH-UST-17-2	6/18/2009	Az, C1, F1, J	U, A2, J, Q2	U	U	J	J	J		J	

			TPH 25	Motor TPH?	s diesel 1911	as dine Juhn	Ardeathor Bet	nzene	irene cityl	gentene mrtyle	ie de lie ort	Hene Alen
	Residential CHHSL (mg/k	(g)							v			
	Residential USEPA RSL (ı	mg/kg)					1.1	5,000	5.7	9,200	5,300	600
	Residential ESL Shallow S	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3
Sample Location	Sample ID	Sample Date		TP	Hs				ВТ	EX		
-		-	<24	<6	<20	150	0.046	<0.2	1.5	0.032	<0.2	<0.232
RH-UST-17-4	RH-UST-17-4	6/18/2009	U, A2, J	U, A2, J, Q2	U,G		J,Q	U		J	U	J
			<23	4.1	<3.8	160	0.00074	<0.0019	0.0025	0.0012	0.00046	0.00166
RH-UST-17-8	RH-UST-17-8	6/18/2009	U, A2, J	A2, C1, F1, J, Q2	U		J	U		J	J	J
			<23	7	<3.5	180	0.00058	<0.0019	0.0012	<0.0019	<0.0019	<0.0038
RH-UST-17-10	RH-UST-17-10	6/18/2009		A2, A3, F1, J	U		J	U	J	U	U	U
			27	<5.6	<0.6	<0.6	0.00046	<0.003	<0.003	<0.003	<0.003	<0.006
RH-AS-18-0.5	RH-AS-18-0.5	6/17/2009	F1,J	U	U	U	J	U	U	U	U	U
			26	<5.7	<0.67	< 0.67	0.00058	<0.0033	<0.0033	<0.0033	<0.0033	<0.0066
RH-AS-18-0.5 (Dup)	RH-AS-1018-0.5	6/17/2009	F1,J	U	U	U	J	U	U	U	U	U
		-/	22	<5.7	<0.49	<0.49	<0.0025	<0.0025	0.00026	<0.0025	<0.0025	<0.005
RH-AS-18-2	RH-AS-18-2	6/17/2009	A3,C1,F1,J	A3,J,U	<u>U</u>	U	U	U	J	U	U	U
DU AC 40 4	DU 40 40 4	6/17/2009	<24 U,A3,J	<6 U,A3,J	<0.48	<0.48	0.0015	<0.0024 U	<0.0024	<0.0024 U	<0.0024 U	<0.0048 U
RH-AS-18-4	RH-AS-18-4	6/17/2009	<23	<5.7	<0.81	<0.81	0.00076	<0.004	<0.004	<0.004	<0.004	<0.008
RH-AS-18-8	RH-AS-18-8	6/17/2009	U	U U	U.01	U	0.00076	₹0.004 U	U 40.004	U V	U V	U.008
KH-A3-10-0	KH-A3-10-0	0/17/2009	<23	<5.7	<0.5	<0.5	0.00044	<0.0025	<0.0025	<0.0025	<0.0025	<0.005
RH-AS-18-10	RH-AS-18-10	6/17/2009	U,A3,J	U,A3,J	U	U	.]	U	U	U	U	U
111710 10 10	1111710 10 10	0/11/2000	27	7.1	<0.42	<0.42	0.00033	<0.0021	<0.0021	<0.0021	<0.0021	<0.0042
RH-AS-19-0.5	RH-AS-19-0.5	6/17/2009	F1,J	F1,J	U	U	J.:55055	U	U	U	U	U
			18	<5.7	<0.6	<0.6	0.00073	<0.003	<0.003	<0.003	<0.003	<0.006
RH-AS-19-2	RH-AS-19-2	6/17/2009	C1,F1,J	J,Q4,Q6,U	U	U	J	U	U	U	U	U
			100	3	<0.55	<0.55	0.0005	<0.0027	<0.0027	<0.0027	<0.0027	<0.0034
RH-AS-19-4	RH-AS-19-4	6/17/2009	F1,J	C1,F1,J	U	U	J	U	U	U	U	U
			<25	<6.2	<0.59	<0.59	0.0022	0.0012	<0.003	<0.003	<0.003	<0.006
RH-AS-19-8	RH-AS-19-8	6/17/2009	U	U	U	U	J	J	U	U	U	U
			<25	6.5	<0.42	<0.42	0.002	0.0093	<0.0021	<0.0021	<0.0021	<0.0042
RH-AS-19-10	RH-AS-19-10	6/17/2009	U	F1,J	U	U	J	J	U	U	U	U
BU 4B 555 5 5	DU 4D 444 45	0/4=/2222	1,800	13	<0.4	<0.4	0.00037	<0.002	<0.002	<0.002	<0.002	<0.004
RH-AR-020-0.5	RH-AR-020-0.5	6/17/2009	A3,J	A3,F1,J,Q4	<u>U</u>	U	J	U	U	U	U	U
DILAD 00 0 5 (D)	DU AD 4000 0.5	0/47/0000	1,400	180	<0.49	<0.49	0.00055	<0.0024	<0.0024	<0.0024	<0.0024	<0.0048
RH-AR-20-0.5 (Dup)	RH-AR-1020-0.5	6/17/2009	J,Q7	-40	-0.51	-0.F1	0.0040	0.0003	-0.000G	-0.0036	-0.0036	-0 0033
DU AD 20 2	DU AD OO O	6/47/2000	24	<12	<0.51	<0.51	0.0019	0.0083	<0.0026	<0.0026	<0.0026	<0.0032
RH-AR-20-2	RH-AR-20-2	6/17/2009	A3,J	U,A3,J	U	U	J	J	U	U	U	U

					,	,	,	,	,	,	,	,
			TPH 25	Motor TPH	diesel John	as dine Jukno	Ardeathor Bet	nzene Tol	irene thyl	Dertene mrtyle	ie dene	Hene Hylene
			1 Sept.		/ ` (2 11/4	<u> </u>		Ethy	/ mr, s	8/ 6	/ +,
	Residential CHHSL (mg/	(ka)										
	-						1.1	5.000	5.7	9,200	5.300	600
	Residential USEPA RSL ((mg/kg)						0,000	0	0,200	0,000	
	Residential ESL Shallow	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3
Sample Location	Sample ID	Sample Date		TP	Hs				ВТ	EX		
-	-	-	77	<11	<0.54	< 0.54	0.00094	<0.0027	< 0.0027	< 0.0027	< 0.0027	< 0.0034
RH-AR-20-4	RH-AR-20-4	6/17/2009		U	U	U	J	U	U	U	U	U
			91	<11	<0.47	<0.47	0.0004	< 0.0023	<0.0023	< 0.0023	< 0.0023	<0.0046
RH-AR-20-8	RH-AR-20-8	6/17/2009	A3,J	U,A3,J,Q4	U	U	J	U	U	U	U	U
			41	<12	< 0.39	<0.39	0.00056	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-AR-21-0.5	RH-AR-21-0.5	6/17/2009	A3,F1,J	U,A3,J	U	U	J	U	U	U	U	U
			26	<12	<0.4	<0.4	0.00063	<0.002	<0.002	<0.002	<0.002	<0.004
RH-AR-21-2	RH-AR-21-2	6/17/2009		U	U	U	J	U	U	U	U	U
			65	<12	<0.46	<0.46	0.0021	0.001	<0.0023	<0.0023	<0.0023	<0.0046
RH-AR-21-4	RH-AR-21-4	6/17/2009	0.5	U	U	U	J	J	U	U	U	U
DU AD O4 O	DU AD O4 O	0/47/0000	<25	<12	<0.35	<0.35	0.0016	0.0025	<0.0018	0.0013	<0.0018	0.0013
RH-AR-21-8	RH-AR-21-8	6/17/2009	U	U	U -0.44	U .0.44	0.0040	.0.0000	U .0000	J .0.000	U .0000	J -0.0044
RH-AR-22-0.5	RH-AR-22-0.5	6/17/2009	NA	NA	<0.44	<0.44	0.0012	<0.0022	<0.0022	<0.0022	<0.0022	<0.0044
KIT-AK-22-0.5	KH-AK-22-0.3	0/11/2009			<0.52	<0.52	0.0011	<0.0026	<0.0026	<0.0026	<0.0026	<0.0052
RH-AR-22-2	RH-AR-22-2	6/17/2009	NA	NA	11	U.JZ	0.0011	U	\0.0020	U	U	U
11117111 22 2	TOTAL ELE	0/11/2000			<0.35	<0.35	0.00064	<0.0017	<0.0017	<0.0017	<0.0017	<0.0034
RH-AR-22-2 (Dup)	RH-AR-1022-2	6/17/2009	NA	NA	U	U	J	U	U	U	U	U
X -F7	-		NIA.	NIA	<0.37	< 0.37	0.00064	<0.0019	<0.0019	<0.0019	<0.0019	<0.0038
RH-AR-22-4	RH-AR-22-4	6/17/2009	NA	NA	U	U	J	U	U	U	U	U
			NA	NA	<0.31	<0.31	0.0011	<0.0016	<0.0016	< 0.0016	<0.0016	< 0.0032
RH-AR-22-8	RH-AR-22-8	6/17/2009	INA	INA	U	U	J	U	U	U	U	U
			27	<11	<0.38	<0.38	0.00031	<0.0019	<0.0019	0.00098	<0.0019	0.00098
RH-AR-23-0.5	RH-AR-23-0.5	6/17/2009		U	U	U	J	U	U	J	U	J
			<23	<12	<0.4	<0.4	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004
RH-AR-23-2	RH-AR-23-2	6/17/2009	U,A3,J	U,A3,J	U	U	U	U	U	U	U	U
DU 4D 00 4	DU 4D 00 4	0/47/0000	<24	<12	<0.41	<0.41	<0.0021	<0.0021	<0.0021	<0.0021	<0.0021	<0.0042
RH-AR-23-4	RH-AR-23-4	6/17/2009	U <24	U <12	U <0.42	U <0.42	0.00035	<0.002	<0.002	<0.002	<0.002	<0.004
DU AD 22 0	DH AD 22 0	6/47/2000	<24 U	<12 U	<0.42 U	<0.42 U	0.00035	<0.002 U	<0.002 U	<0.002 U	<0.002 U	<0.004 U
RH-AR-23-8	RH-AR-23-8	6/17/2009	1,100	33	<0.45	<0.45	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0046
	RH-AR-24-0.5	6/17/2009	J,Q7	F1,J,Q7	<0.45 U	<0.45 U	<0.0023	<0.0023	<0.0023	<0.0023	<0.0023	<0.0046 U
RH-AR-24-0 5									U			U
RH-AR-24-0.5	KII-AK-24-0.3	0/11/2003	210	<11	<0.43	< 0.43	<0.0021	<0.0021	<0.0021	< 0.0021	<0.0021	< 0.0042

			TPH 25	Motor TPH	de sel Tri	as dine	Ardeathor Bet	ntene 70	juene invit	Jenzene nr.tyle	ne dene	Hene's	otal
	Residential CHHSL (mg/l	kg)	/ Rin			or Mitty	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Eliny	W.	\$ · · · · · ·		
	Residential USEPA RSL (mg/kg)					1.1	5,000	5.7	9,200	5,300	600	
	Residential ESL Shallow	Soil (mg/kg)	370	83	83		0.044	2.9	2.3			2.3	
Sample Location	Sample ID	Sample Date		TPHs BTEX									
			<24	<12	<0.4	< 0.4	0.0004	< 0.002	< 0.002	< 0.002	< 0.002	<0.004	
RH-AR-24-4	RH-AR-24-4	6/17/2009	U	U	U	U	J	U	U	U	U	U	
RH-AR-24-4 (Dup)	RH-AR-1024-4	6/17/2009	16 C1,J	<12 U	<0.44 U	<0.44 U	<0.0022 U	<0.0022 U	<0.0022 U	<0.0022 U	<0.0022 U	<0.0044 U	
RH-AR-24-8	RH-AR-24-8	6/17/2009	680 A3,J	8.7 A3,C1,F1,J			ata Not Rep	ported Due	to Lab Equip	oment Failu	re	•	
			<590	<150	<50	<50	<1	0.33	<1	<1	<1	<2	
Rinse Blank	RH-RB01-061609	6/16/2009	U	U	U	U	U	J	U	U	U	U	
•			<570	<140	<50	<50	<1	<1	<1	<1	<1	<2	
Rinse Blank	RH-RB02-061709	6/17/2009	U	U	U	U	U	U	U	U	U	U	
Rinse Blank	RH-RB03-061809	6/18/2009	<570 U, A2, J	<140 U, A2, J	<50 U	<50 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	
			<580	<140	<50	<50	<1	<1	<1	<1	<1	<2	
Rinse Blank	RH-RB04-061909	6/19/2009	U, A2, J	U, A2, J	U	U	U	U	U	U	U	U	

Laboratory Notes

- A2 = Sample received above recommended temperature
- A3 = Sample was analyzed beyond recommended holding time
- C1 = Reported concentration is below quantitation limit
- F1 = Peak pattern does not resemble that of the fuel standard
- J = Estimated result.
- Q= Elevated reporting limit. The Reporting limit is elevated due to high
- Q2 = The associated LCS standard did not meet recovery criteria
- Q4 = The associated MS or MSD did not meet recovery criteria
- Q7 = Surrogate spike reciverites for this sample were outside control limits
- U = Analyte not detected

General Notes

CHHSL = California Human Health Screening Level, - California EPA, January 2005

ESL = Environmental Screening Level, CA Regional Water Quality Control Board, May 2008

RSL = Regional Screening Levels, U.S. EPA Region 9, September 2008

USEPA = United States Environmental Protection Agency

mg/kg = Milligrams per kilograms

ug/L = Micrograms per liter

<X = Indicates analyte was not detected at or above reporting limit X

410 = Shaded results exceeded respective soil screening levels

410 = Results listed in bold exceeded the laboratory reporting limit

Dup = Duplicate sample

NA = Not Analyzed

			Cadmium	Chromium	Lead	Nickel	Zinc
	Residential CHHSL (m	g/kg)	1.7		150	1,600	23,000
	Residential USEPA RS	L (mg/kg)	70	280	400	1,500	23,000
	Residential ESL Shallo	w Soil (mg/kg)	1.7		200	150	600
Sample Location	Sample ID	Sample Date					
RH-AAR-01-0.5	RH-AAR-01-0.5	6/16/2009	1.7 J	45.9	134 J	56.5	223
RH-AAR-01-2	RH-AAR-01-2	6/16/2009	1.1 J	50.4	5	32.1	30.6
RH-AAR-01-4	RH-AAR-01-4	6/16/2009	<0.58 UJ	40.4	20.5	24.6	31.5
		6/16/2009	0.37	48.5	443	38.1	461
RH-AAR-02-0.5	RH-AAR-02-0.5		0.32	49	583	37.2	457
RH-AAR-02-0.5 (Dup)	RH-AAR-1002-0.5	6/16/2009	<0.56	46.3	J 17.9	25	40.8
RH-AAR-02-2	RH-AAR-02-2	6/16/2009	UJ <0.58	44.6	J 31.7	37.3	47.2
RH-AAR-02-4	RH-AAR-02-4	6/16/2009	UJ 1.2	49.9	J 16.2	36.8	43.5
RH-AAR-03-0.5	RH-AAR-03-0.5	6/16/2009	J <0.54	47.1	J 7	28.6	25.5
RH-AAR-03-2	RH-AAR-03-2	6/16/2009	UJ <0.55	53.1	յ 16.5	31.8	42.3
RH-AAR-03-4	RH-AAR-03-4	6/16/2009	UJ	00.1	J 4.5	01.0	42.0
RH-UST-04-0.5	RH-UST-04-0.5	6/17/2009			J		
RH-UST-04-2	RH-UST-04-2	6/17/2009			4.8 J		
RH-UST-04-4	RH-UST-04-4	6/17/2009			4.2 J		
RH-UST-04-8	RH-UST-04-8	6/17/2009			4.8 J		
RH-UST-04-10	RH-UST-04-10	6/17/2009			5.3 J		
RH-UST-05-0.5	RH-UST-05-0.5	6/18/2009			4.6 J		
RH-UST-05-0.5 (Dup)	RH-UST-1005-0.5	6/18/2009			9		
RH-UST-05-2	RH-UST-05-2	6/18/2009			7.1 J		
RH-UST-05-4	RH-UST-05-4	6/18/2009			5.4		
RH-UST-05-8	RH-UST-05-8	6/18/2009			5.6		
					3.2 J		
RH-UST-05-10	RH-UST-05-10	6/18/2009			4.4		
RH-UST-06-0.5	RH-UST-06-0.5	6/18/2009			J		

	Cadmium	Chromium	Lead	Nickel	Zinc
Basidantial OUUSI (mallar)	4.7		450	4.000	00.000
Residential CHHSL (mg/kg)	1.7		150	1,600	23,000
Residential USEPA RSL (mg/kg)	70	280	400	1,500	23,000
Residential ESL Shallow Soil (mg/kg)	1.7		200	150	600

	Residential ESL Shallo	w don (mg/kg)	1.7	200	130	000
Sample Location	Sample ID	Sample Date				
BU 1107 00 0	DU 1107 00 0	0/4.0/0.00		3.9		
RH-UST-06-2	RH-UST-06-2	6/18/2009		3.3		
RH-UST-06-4	RH-UST-06-4	6/18/2009		3.3 J		
1111 001 00 4	1111 551 55 4	0/10/2000		5.7		
RH-UST-06-8	RH-UST-06-8	6/18/2009		J		
				4.5		
RH-UST-06-10	RH-UST-06-10	6/18/2009		J		
DU LICT OF OF	DILLICT OZ O E	C/4.0/2000		41.7 J		
RH-UST-07-0.5	RH-UST-07-0.5	6/18/2009		77.9		
RH-UST-07-0.5 (Dup)	RH-UST-1007-0.5	6/18/2009		77.0		
				7.3		
RH-UST-07-2	RH-UST-07-2	6/18/2009		J		
				6		
RH-UST-07-4	RH-UST-07-4	6/18/2009				
RH-UST-07-8	RH-UST-07-8	6/18/2009		6		
KI1-031-07-0	K11-031-07-6	0/10/2009		4.6		
RH-UST-07-10	RH-UST-07-10	6/18/2009		J		
				77.5		
RH-UST-08-0.5	RH-UST-08-0.5	6/18/2009				
				7.7		
RH-UST-08-2	RH-UST-08-2	6/18/2009				
RH-UST-08-4	RH-UST-08-4	6/18/2009		5.6		
1(11-001-00-4	KII-001-00-4	0/10/2003		5.1		
RH-UST-08-8	RH-UST-08-8	6/18/2009		- U.I.		
				7.4		
RH-UST-08-10	RH-UST-08-10	6/18/2009				
				22.3		
RH-UST-09-0.5	RH-UST-09-0.5	6/19/2009		15.4		
RH-UST-09-0.5 (Dup)	RH-UST-1009-0.5	6/19/2009		15.4		
ТП-001-03-0.3 (Бир)	111-001-1003-0.5	0/13/2003		32		
RH-UST-09-2	RH-UST-09-2	6/19/2009				
				14.3		
RH-UST-09-4	RH-UST-09-4	6/19/2009				
DILLIGT OD C	DILLICT OO C	C/4.0/200C		34.2		
RH-UST-09-8	RH-UST-09-8	6/19/2009		7.3		
RH-UST-09-10	RH-UST-09-10	6/19/2009		1.3		
551 66 16	551 66 16	5 5. 2000		112		
RH-UST-10-0.5	RH-UST-10-0.5	6/19/2009		J		
				10.2		
RH-UST-10-2	RH-UST-10-2	6/19/2009		J		1
DH 110T 40 4	DU HET 40.4	6/40/2000		4.7 J		
RH-UST-10-4	RH-UST-10-4	6/19/2009				1

	Cadmium	Chromium	Lead	Nickel	Zinc
Residential CHHSL (mg/kg)	1.7		150	1.600	23.000
Residential USEPA RSL (mg/kg)	70	280	400	1.500	23.000
Residential ESL Shallow Soil (mg/kg)	1.7		200	150	600

	residential EOE offallo	(g/g/			
Sample Location	Sample ID	Sample Date			
		•	6.5		
RH-UST-10-8	RH-UST-10-8	6/19/2009			
			6.9		
RH-UST-10-10	RH-UST-10-10	6/19/2009	J		
			14.1		
RH-UST-11-0.5	RH-UST-11-0.5	6/18/2009	J		
			8.7		
RH-UST-11-0.5 (Dup)	RH-UST-1011-0.5	6/18/2009			
			6.3		
RH-UST-11-2	RH-UST-11-2	6/18/2009	J		
			8		
RH-UST-11-4	RH-UST-11-4	6/18/2009	J		
			8.8		
RH-UST-11-8	RH-UST-11-8	6/18/2009	J		
			6.4		
RH-UST-11-10	RH-UST-11-10	6/18/2009	J		
			14.4		
RH-UST-12-0.5	RH-UST-12-0.5	6/19/2009	J		
			8.7		
RH-UST-12-2	RH-UST-12-2	6/19/2009	J		
			5.6		
RH-UST-12-4	RH-UST-12-4	6/19/2009	J		
			6		
RH-UST-12-8	RH-UST-12-8	6/19/2009	J		
			7		
RH-UST-12-10	RH-UST-12-10	6/19/2009	J		
			11.2		
RH-UST-13-0.5	RH-UST-13-0.5	6/18/2009	J		
			19.9		
RH-UST-13-0.5 (Dup)	RH-UST-1013-0.5	6/18/2009			
			6.5		
RH-UST-13-2	RH-UST-13-2	6/18/2009			
DU 1167 46 4	DU 1107 40 4	0/40/0000	6.1		
RH-UST-13-4	RH-UST-13-4	6/18/2009			
DU HET 42 0	DU HET 42 0	6/4.9/2000	5.1		
RH-UST-13-8	RH-UST-13-8	6/18/2009	6.8		
DU 118T 12 10	DU 118T 12 10	6/19/2000	0.0		
RH-UST-13-10	RH-UST-13-10	6/18/2009	14.3		
RH-UST-14-0.5	RH-UST-14-0.5	6/18/2009	14.3		
1/11-031-14-0.3	111-031-14-0.3	0/10/2009	5.1		
RH-UST-14-2	RH-UST-14-2	6/18/2009	3.1		
111-031-14-2	KII-031-14-2	3/10/2003	6.9		
RH-UST-14-4	RH-UST-14-4	6/18/2009	0.5		
1111 001 17 7		3/10/2003	5.6		
RH-UST-14-8	RH-UST-14-8	6/18/2009	3.0		
1111 001 170		3/10/2003	6.8		
RH-UST-14-8 (Dup)	RH-UST-1014-8	6/18/2009			
co. 14 c (Sup)	551 1514 6	3, 10, 2000	6.5		
RH-UST-14-10	RH-UST-14-10	6/18/2009			
1 551 14 10	551 17 10	J. 1. J. E. U. U.		1	

	Cadmium	Chromium	Lead	Nickel	Zinc
Residential CHHSL (mg/kg)	1.7		150	1.600	23.000
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				,	-,
Residential USEPA RSL (mg/kg)	70	280	400	1,500	23,000
Residential ESL Shallow Soil (mg/kg)	1.7		200	150	600

Sample Location Sample ID Sample Date RH-UST-15-0.5 RH-UST-15-0.5 6/19/2009 7 RH-UST-15-2 RH-UST-15-2 6/19/2009 7 RH-UST-15-4 RH-UST-15-4 6/19/2009 5.5 RH-UST-15-8 RH-UST-15-8 6/19/2009 10.3 RH-UST-15-10 RH-UST-15-10 6/19/2009 8 RH-UST-16-0.5 RH-UST-16-0.5 6/19/2009 8.7 RH-UST-16-2 6/19/2009 8.7 8.7 RH-UST-16-4 RH-UST-16-2 6/19/2009 11.1 RH-UST-16-4 RH-UST-16-4 6/19/2009 8.3 RH-UST-16-4 6/19/2009 7.8 8.3 RH-UST-16-10 RH-UST-16-10 6/19/2009 7.8 8.3 RH-UST-16-10 RH-UST-16-10 6/19/2009 7.8 8.3 RH-UST-16-10 RH-UST-17-0.5 6/19/2009 7.1 7.1 RH-UST-17-0.5 RH-UST-17-0.5 6/19/2009 7.1 7.1 RH-UST-17-10 RH-UST-17-10 6/18/2009		Residential ESL Shallo	ow Soii (ilig/kg)	1.7		200	150	600
RH-UST-15-0.5 RH-UST-15-0.5 6/19/2009	Sample Location	Sample ID	Sample Date					
RH-UST-15-2 RH-UST-15-2 6/19/2009	RH-UST-15-0.5	RH-UST-15-0.5	6/19/2009			9.3		
RH-UST-15-4 RH-UST-15-8 RH-UST-15-8 RH-UST-15-8 RH-UST-15-8 RH-UST-15-10 RH-UST-15-10 G/19/2009 RH-UST-16-0.5 RH-UST-16-0.5 G/19/2009 RH-UST-16-0.5 RH-UST-16-0.5 G/19/2009 RH-UST-16-10 RH-UST-16-2 RH-UST-16-2 G/19/2009 RH-UST-16-4 RH-UST-16-4 G/19/2009 RH-UST-16-4 (Dup) RH-UST-16-4 G/19/2009 RH-UST-16-4 RH-UST-16-8 RH-UST-16-8 G/19/2009 RH-UST-16-10 RH-UST-16-10 G/19/2009 RH-UST-17-0.5 RH-UST-17-0.5 G/18/2009 RH-UST-17-0.5 RH-UST-17-2 RH-UST-17-2 RH-UST-17-2 RH-UST-17-2 RH-UST-17-2 RH-UST-17-3 G/18/2009 RH-UST-17-10 RH-UST-17-4 G/18/2009 RH-UST-17-10 RH-UST-17-8 RH-UST-17-8 RH-UST-17-8 RH-UST-17-8 G/18/2009 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 G/18/2009 RH-AS-18-0.5 RH-AS-18-0.5 RH-AS-18-0.5 RH-AS-18-0.5 RH-AS-18-2 G/17/2009 RH-AS-18-10 RH-AS-18-8 RH-AS-18-8 RH-AS-18-8 RH-AS-18-8 RH-AS-18-8 RH-AS-18-8 RH-AS-18-8 RH-AS-18-8 RH-AS-18-10 RH-AS-18-10 RH-AS-19-0.5 G/17/2009 RH-AS-19-0.5 G/1						7		
RH-UST-15-8 RH-UST-15-10 6/19/2009 7.3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8						5.5		
RH-UST-15-10 RH-UST-16-0.5 6/19/2009 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	RH-UST-15-4	RH-UST-15-4	6/19/2009			10.3		
RH-UST-16-0.5 RH-UST-16-0.5 6/19/2009	RH-UST-15-8	RH-UST-15-8	6/19/2009			7.3		
RH-UST-16-0.5 RH-UST-16-0.5 6/19/2009	RH-UST-15-10	RH-UST-15-10	6/19/2009					
RH-UST-16-2 RH-UST-16-4 6/19/2009 RH-UST-16-4 (Dup) RH-UST-16-4 (Dup) RH-UST-16-8 RH-UST-16-8 6/19/2009 RH-UST-16-8 RH-UST-16-10 6/19/2009 RH-UST-16-10 RH-UST-16-10 6/19/2009 RH-UST-17-0.5 RH-UST-17-0.5 6/18/2009 RH-UST-17-10 RH-UST-17-2 6/18/2009 RH-UST-17-4 RH-UST-17-4 6/18/2009 RH-UST-17-8 RH-UST-17-8 6/18/2009 RH-UST-17-10 RH-UST-17-10 6/18/2009 RH-AS-18-0.5 (Dup) RH-AS-18-0.5 (Dup) RH-AS-18-10 RH-AS-18-10 6/17/2009 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-19-2 RH-AS-19-2 RH-AS-19-2 RH-AS-19-2 RH-AS-19-2 RH-AS-19-4 RH-AS-19-4 RH-AS-19-8 R	RH-UST-16-0.5	RH-UST-16-0.5	6/19/2009					
RH-UST-16-4 (Dup) RH-UST-16-8 RH-UST-16-8 RH-UST-16-8 RH-UST-16-10 RH-UST-16-10 RH-UST-16-10 RH-UST-17-0.5 RH-UST-17-0.5 RH-UST-17-0.5 RH-UST-17-2 RH-UST-17-2 RH-UST-17-4 RH-UST-17-4 RH-UST-17-8 RH-UST-17-8 RH-UST-17-10 RH-AS-18-0.5 RH-AS-18-0.5 RH-AS-18-0.5 RH-AS-18-10 RH-AS-18	RH-UST-16-2	RH-UST-16-2	6/19/2009			8.7		
RH-UST-16-4 (Dup) RH-UST-16-8 RH-UST-16-8 RH-UST-16-8 RH-UST-16-10 RH-UST-16-10 RH-UST-17-0.5 RH-UST-17-0.5 RH-UST-17-0.5 RH-UST-17-2 RH-UST-17-2 RH-UST-17-4 RH-UST-17-4 RH-UST-17-8 RH-UST-17-8 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-UST-17-10 RH-AS-18-0.5 RH-AS-18-0 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-19-0 RH-AS-19-	RH-UST-16-4	RH-UST-16-4	6/19/2009			11.1		
RH-UST-16-8 RH-UST-16-10 (719/2009) RH-UST-16-10 RH-UST-16-10 (719/2009) RH-UST-17-0.5 RH-UST-17-0.5 (718/2009) RH-UST-17-0.5 RH-UST-17-2 (718/2009) RH-UST-17-2 RH-UST-17-2 (718/2009) RH-UST-17-4 RH-UST-17-4 (718/2009) RH-UST-17-8 RH-UST-17-8 (718/2009) RH-UST-17-10 RH-UST-17-10 (718/2009) RH-UST-17-10 RH-UST-17-10 (718/2009) RH-AS-18-0.5 RH-AS-18-0.5 (717/2009) RH-AS-18-0.5 RH-AS-18-10 (717/2009) RH-AS-18-18-2 RH-AS-18-2 (717/2009) RH-AS-18-8 RH-AS-18-8 (717/2009) RH-AS-18-10 RH-AS-18-10 (717/2009) RH-AS-19-0.5 RH-AS-19-0.5 (717/2009) RH-AS-19-0.5 RH-AS-19-10 (717/2009) RH-AS-19-10 RH-AS-19-2 (717/2009) RH-AS-19-2 RH-AS-19-3 (717/2009) RH-AS-19-4 RH-AS-19-4 (717/2009) RH-AS-19-8 RH-AS-19-8 (717/2009) RH-AS-19-8						8.3		
RH-UST-16-10 RH-UST-16-10 6/19/2009	KH-051-16-4 (Dup)	RH-US1-1016-4	6/19/2009			7.8		
RH-UST-17-0.5 RH-UST-17-0.5 6/18/2009 RH-UST-17-2 RH-UST-17-2 6/18/2009 RH-UST-17-4 RH-UST-17-4 6/18/2009 RH-UST-17-8 RH-UST-17-8 6/18/2009 RH-UST-17-10 RH-UST-17-10 6/18/2009 RH-AS-18-0.5 RH-AS-18-0.5 6/17/2009 RH-AS-18-0.5 (Dup) RH-AS-18-18-2 RH-AS-18-2 6/17/2009 RH-AS-18-3 RH-AS-18-4 6/17/2009 RH-AS-18-18-10 RH-AS-18-10 6/17/2009 RH-AS-18-10 RH-AS-18-10 6/17/2009 RH-AS-19-0.5 RH-AS-19-2 6/17/2009 RH-AS-19-2 RH-AS-19-4 6/17/2009 RH-AS-19-4 RH-AS-19-4 6/17/2009 RH-AS-19-4 RH-AS-19-8 6/17/2009 RH-AS-19-8 RH-AS-19-8 8/17/2009 RH-AS-19-8 RH-AS-19-8 8/17/2009 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10	RH-UST-16-8	RH-UST-16-8	6/19/2009			6.1		
RH-UST-17-0.5 RH-UST-17-2 RH-UST-17-2 RH-UST-17-2 RH-UST-17-2 RH-UST-17-4 RH-UST-17-4 RH-UST-17-4 RH-UST-17-4 RH-UST-17-4 RH-UST-17-4 RH-UST-17-8 RH-UST-17-8 RH-UST-17-8 RH-UST-17-8 RH-UST-17-8 RH-UST-17-8 RH-UST-17-10 RH-AS-18-0.5 RH-AS-18-2 RH-AS-18-2 RH-AS-18-2 RH-AS-18-2 RH-AS-18-2 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-6 RH-AS-18-6 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-19-0.5 RH-AS-19-0.5 RH-AS-19-0.5 RH-AS-19-0.5 RH-AS-19-0.5 RH-AS-19-10 RH-A	RH-UST-16-10	RH-UST-16-10	6/19/2009			1/ 0		
RH-UST-17-2 RH-UST-17-2 6/18/2009	RH-UST-17-0.5	RH-UST-17-0.5	6/18/2009					
RH-UST-17-4 RH-UST-17-8 6/18/2009	RH-UST-17-2	RH-UST-17-2	6/18/2009			7.1		
RH-UST-17-8 RH-UST-17-8 6/18/2009 5.2 RH-UST-17-10 RH-UST-17-10 6/18/2009 6.9 RH-AS-18-0.5 RH-AS-18-0.5 6/17/2009 U 5.2 RH-AS-18-0.5 (Dup) RH-AS-1018-0.5 6/17/2009 U 5.2 RH-AS-18-18-2 RH-AS-18-2 6/17/2009 U 5.2 RH-AS-18-4 RH-AS-18-4 6/17/2009 U 5.2 RH-AS-18-8 RH-AS-18-8 6/17/2009 U 5.2 RH-AS-18-10 RH-AS-18-10 6/17/2009 U 5.2 RH-AS-19-0.5 RH-AS-19-0.5 6/17/2009 U 5.2 RH-AS-19-0.5 RH-AS-19-2 6/17/2009 U 5.2 RH-AS-19-4 RH-AS-19-4 6/17/2009 U 5.2 RH-AS-19-8 RH-AS-19-8 6/17/2009 U 5.2 RH-AS-19-8 RH-AS-18-8 6/17/2	RH-UST-17-4	RH-UST-17-4	6/18/2009					
RH-UST-17-10 RH-UST-17-10 6/18/2009								
RH-AS-18-0.5 RH-AS-18-0.5 6/17/2009 U 1.8 78 6.3 58.7 59 RH-AS-18-0.5 (Dup) RH-AS-1018-0.5 6/17/2009 U 5 5.2 38 45.2 RH-AS-18-2 RH-AS-18-2 6/17/2009 U 5 5.2 38 45.2 RH-AS-18-4 RH-AS-18-4 6/17/2009 U 5 5.2 38 45.2 RH-AS-18-8 RH-AS-18-8 6/17/2009 U 5 5.2 38 45.2 RH-AS-18-10 RH-AS-18-8 6/17/2009 U 5 5.2 38 45.2 RH-AS-18-10 RH-AS-18-10 6/17/2009 U 5 5.2 38 45.2 RH-AS-18-10 U 5 5.2 38 45.2 RH-AS-18-10 RH-AS-18-10 6/17/2009 U 5 5.2 5.2 RH-AS-19-0.5 RH-AS-19-0.5 6/17/2009 U 5 5.2 5.2 RH-AS-19-10 RH-AS-19-2 6/17/2009 U 5 5.2 5.2 RH-AS-19-2 RH-AS-19-2 6/17/2009 U 5 5.2 5.2 RH-AS-19-3 RH-AS-19-4 6/17/2009 U 5 5.2 5.2 RH-AS-19-4 RH-AS-19-8 6/17/2009 U 5 5.2 5.2 5.2 RH-AS-19-8 RH-AS-19-8 6/17/2009 U 5 5.2 5.2 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 6/17/2009 U 5 5.2 5.2 RH-AS-19-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS								
RH-AS-18-0.5 (Dup) RH-AS-1018-0.5 (6/17/2009 RH-AS-18-0.5 (Dup) RH-AS-18-0.5 (Dup) RH-AS-18-0.5 (Dup) RH-AS-18-0.5 (Dup) RH-AS-18-0.5 (Dup) RH-AS-18-10 RH-AS-18-2 (RH-AS-18-2) RH-AS-18-4 (RH-AS-18-4) RH-AS-18-8 (RH-AS-18-8) RH-AS-18-8 (RH-AS-18-8) RH-AS-18-10 RH-AS-18-10 RH-AS-19-0.5 (RH-AS-19-0.5) RH-AS-19-2 (RH-AS-19-4) RH-AS-19-4 (RH-AS-19-8) RH-AS-19-8 (RH-AS-19-8) RH-AS-19-8 (RH-AS-19-8) RH-AS-19-8 (RH-AS-19-8) RH-AS-19-8 (RH-AS-19-8) RH-AS-19-8 (RH-AS-19-8) RH-AS-19-10 RH-AS-	RH-UST-17-10	RH-UST-17-10	6/18/2009	<0.56	64.4	7 3	52.7	55.3
RH-AS-18-0.5 (Dup) RH-AS-1018-0.5 RH-AS-18-2 RH-AS-18-2 RH-AS-18-2 RH-AS-18-2 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-8 RH-AS-18-8 RH-AS-18-10 RH-AS-18-10 RH-AS-19-0.5 RH-AS-19-2 RH-AS-19-4 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-10 RH-AS-1018-0.5 RH-AS-1018-0.5 RH-AS-1018-0.5 RH-AS-1018-0.5 RH-AS-1018-0.5 RH-AS-18-2 RH-AS-18-2 RH-AS-18-2 RH-AS-18-3 RH-AS-18-3 RH-AS-18-3 RH-AS-19-3 RH-AS-19-4 RH-AS-19-4 RH-AS-19-8 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 RH-AS-18-10 R	RH-AS-18-0.5	RH-AS-18-0.5	6/17/2009	U				
RH-AS-18-2 RH-AS-18-2 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-8 RH-AS-18-8 RH-AS-18-8 RH-AS-18-10 RH-AS-18-10 RH-AS-19-0.5 RH-AS-19-2 RH-AS-19-4 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-18-2 RH-AS-18-2 RH-AS-18-3 RH-AS-18-3 RH-AS-18-3 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-18-2 RH-AS-18-3 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-18-4 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-19-8 RH-AS-18-2 RH-AS-18-3 RH-AS-18-4 RH-AS-18-4 RH-AS-18-5 RH-AS-18-5 RH-AS-18-5 RH-AS-18-6 RH-AS-18-8 RH-AS-1	RH-AS-18-0.5 (Dup)	RH-AS-1018-0.5	6/17/2009	1.8	78	6.3	58.7	59
Color Colo	RH-AS-18-2	RH-AS-18-2	6/17/2009		65.8	5.2	38	45.2
RH-AS-18-8 RH-AS-18-8 6/17/2009 U					128	9.1	73.2	72.7
RH-AS-18-10 RH-AS-18-10 6/17/2009 U	RH-A5-18-4	RH-A5-18-4	6/17/2009	_	38.9	6	46.7	38.8
RH-AS-18-10 RH-AS-18-10 6/17/2009 U 	RH-AS-18-8	RH-AS-18-8	6/17/2009		61.1	10.1	82.4	65.4
RH-AS-19-0.5 RH-AS-19-0.5 6/17/2009 U 0.77 34.5 4.5 42.6 37.7 RH-AS-19-2 RH-AS-19-2 6/17/2009 1.5 53 4.6 61.1 49.1 RH-AS-19-4 RH-AS-19-4 6/17/2009 2.2 91.3 2.9 89.2 64.4 RH-AS-19-8 RH-AS-19-8 6/17/2009 2 85.1 5.5 92.7 67.3	RH-AS-18-10	RH-AS-18-10	6/17/2009	U				
RH-AS-19-2 RH-AS-19-2 6/17/2009 1.5 53 4.6 61.1 49.1 RH-AS-19-4 RH-AS-19-8 RH-AS-19-8 6/17/2009 2.2 91.3 2.9 89.2 64.4 RH-AS-19-8 RH-AS-19-8 6/17/2009 2 85.1 5.5 92.7 67.3	RH-AS-19-0.5	RH-AS-19-0.5	6/17/2009	U				
RH-AS-19-4 RH-AS-19-4 6/17/2009 1.5 53 4.6 61.1 49.1 RH-AS-19-8 RH-AS-19-8 6/17/2009 2.2 91.3 2.9 89.2 64.4 2 85.1 5.5 92.7 67.3	RH-AS-19-2	RH-AS-19-2	6/17/2009	0.77	34.5	4.5	42.6	37.7
RH-AS-19-8 RH-AS-19-8 6/17/2009 2.2 91.3 2.9 89.2 64.4 2 85.1 5.5 92.7 67.3				1.5	53	4.6	61.1	49.1
2 85.1 5.5 92.7 67.3				2.2	91.3	2.9	89.2	64.4
	RH-AS-19-8	RH-AS-19-8	6/17/2009	2	85.1	5.5	92.7	67.3
	RH-AS-19-10	RH-AS-19-10	6/17/2009					

		Cadmium	Chromium	Lead	Nickel	Zinc
Residential CHHSL (m	ıg/kg)	1.7		150	1,600	23,000
Residential USEPA RSL (mg/kg)		70	280	400	1,500	23,000
Residential ESL Shallow Soil (mg/kg)		1.7		200	150	600
Sample ID	Sample Date					
	-	<0.56	56.4	9.3	49.8	40.2
	6/47/2000	111		1		

Sample Location Sample ID Sample Date				,				
RH-AR-20-0.5 (Dup) RH-AR-1020-0.5 (6/17/2009 RH-AR-20-0.5 (Dup) RH-AR-1020-0.5 (6/17/2009 RH-AR-20-0.5 (6/17/2009 RH-AR-20-0.5 (6/17/2009 RH-AR-20-0.5 (6/17/2009 RH-AR-20-0.5 (6/17/2009 RH-AR-20-0 (6/17/2009 RH-AR-21-0 (6/17/2009 RH-AR-22-0 (6/17/2009 RH-AR-23-0 (Sample Location	Sample ID	Sample Date					
RH-AR-20-0.5 (Dup) RH-AR-1020-0.5 (6/17/2009 UJ J J J S.4 222 RH-AR-20-0.5 (Dup) RH-AR-1020-0.5 (6/17/2009 UJ J J J J J J J J J J J J J J J J J J			•	< 0.56	56.4	9.3	49.8	40.2
RH-AR-20-0.5 (Dup) RH-AR-1020-0.5 RH-AR-20-2 RH-AR-20-2 RH-AR-20-2 RH-AR-20-2 RH-AR-20-2 RH-AR-20-3 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-1-0.5 RH-AR-21-1-0.5 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-3 RH-AR-21-3 RH-AR-21-4 RH-AR-21-4 RH-AR-21-4 RH-AR-21-8 RH-AR-21-8 RH-AR-21-8 RH-AR-21-8 RH-AR-21-8 RH-AR-21-8 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-1 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-3 RH-AR-22-3 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-8 RH-AR-22-8 RH-AR-23-0.5 RH-AR	RH-AR-020-0.5	RH-AR-020-0.5	6/17/2009	UJ		J		
RH-AR-20-0.5 (Dup) RH-AR-1020-0.5 RH-AR-20-2 RH-AR-20-2 RH-AR-20-2 RH-AR-20-3 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-4 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-21-0.5 RH-AR-21-1 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-3 RH-AR-21-4 RH-AR-21-4 RH-AR-21-4 RH-AR-21-8 RH-AR-21-8 RH-AR-21-8 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-23-6 RH-AR-23-0 RH-AR-24-0 RH-AR-2				0.35	53.6	130	53.4	222
RH-AR-20-2 RH-AR-20-2 6/17/2009 UJ J J SAL 20-2 RH-AR-20-4 (6/17/2009 UJ J J J SAL 20-2 RH-AR-20-4 (6/17/2009 UJ J J J SAL 20-2 RH-AR-20-8 (6/17/2009 UJ J J J SAL 20-2 RH-AR-21-0.5 (6/17/2009 UJ J J J SAL 20-2 RH-AR-21-2 (6/17/2009 UJ J J J SAL 20-2 RH-AR-21-2 (6/17/2009 UJ J J J SAL 20-2 RH-AR-21-4 (6/17/2009 UJ J J J SAL 20-2 RH-AR-21-8 (6/17/2009 UJ J J J SAL 20-2 RH-AR-21-8 (6/17/2009 UJ J J J SAL 20-2 RH-AR-21-8 (6/17/2009 UJ J J J SAL 20-2 RH-AR-22-0.5 (6/17/2009 UJ J J J SAL 20-2 RH-AR-22-0.5 (6/17/2009 UJ J J J SAL 20-2 RH-AR-22-2 (6/17/2009 UJ J J SAL 20-2 RH-AR-22-4 (6/17/2009 UJ SAL 20-2 RH-AR-22-8 RH-AR-23-2 (6/17/2009 UJ SAL 20-2 RH-AR-23-2 (6/1	RH-AR-20-0.5 (Dup)	RH-AR-1020-0.5	6/17/2009					
RH-AR-20-4 RH-AR-20-4 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-1.0 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-4 RH-AR-21-4 RH-AR-21-8 RH-AR-21-9 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-0.5 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-2 RH-AR-22-3 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-23-0.5 RH-AR-23-0.				<0.56	57.2	7.4	65.1	43.2
RH-AR-20-4 RH-AR-20-4 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-20-8 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-0.5 RH-AR-21-10.5 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-2 RH-AR-21-3 RH-AR-21-4 RH-AR-21-4 RH-AR-21-4 RH-AR-21-8 RH-AR-21-8 RH-AR-21-8 RH-AR-21-8 RH-AR-21-9 R	RH-AR-20-2	RH-AR-20-2	6/17/2009	UJ		J		
RH-AR-20-4 RH-AR-20-8 (6/17/2009		-		0.54	67.6	10.3	78.1	54.1
RH-AR-20-8 RH-AR-20-8 6/17/2009 UJ J J J J A 42.3 47.6 6/17/2009 UJ J J J J A 42.7 40.6 6/17/2009 UJ J J J A 42.7 47.6 6/17/2009 UJ J J J A 42.7 47.6 6/17/2009 UJ J J J A 42.8 8/17/2009 UJ J J J J J A 42.8 8/17/2009 UJ J J J J J J J J J J J J J J J J J J	RH-AR-20-4	RH-AR-20-4	6/17/2009	J		J		
RH-AR-21-0.5 RH-AR-21-0.5 6/17/2009 UJ J J G-0.56 A5.1 42.2 58.3 RH-AR-21-2 RH-AR-21-4 6/17/2009 UJ J J J G-0.56 A5.1 42.7 RH-AR-21-4 RH-AR-21-8 6/17/2009 UJ J J J J G-0.56 A5.1 A5.2 A4.2 A5.3 A5.2 A5.2 A5.2 A5.2 A5.2 A5.2 A5.2 A5.2				< 0.56	29.3	6.7	35.4	37.5
RH-AR-21-0.5 RH-AR-21-0.5 6/17/2009 UJ J J 46.2 40.1 RH-AR-21-2 RH-AR-21-2 6/17/2009 UJ J J J J J J J J J J J J J J J J J J	RH-AR-20-8	RH-AR-20-8	6/17/2009	UJ		J		
RH-AR-21-2 RH-AR-21-2 6/17/2009 UJ J J S S S S S S S S S S S S S S S S				< 0.55	39.6	69.2	42.2	58.3
RH-AR-21-2 RH-AR-21-2 6/17/2009 UJ J J J A2.7 RH-AR-21-4 RH-AR-21-4 6/17/2009 UJ J J J A2.3 RH-AR-21-8 RH-AR-21-8 6/17/2009 UJ J J J A45.2 34.2 RH-AR-22-0.5 RH-AR-22-0.5 6/17/2009 UJ J J A45.2 34.2 RH-AR-22-2 RH-AR-22-2 6/17/2009 UJ J J A45.5 28.5 RH-AR-22-2 (Dup) RH-AR-1022-2 6/17/2009 UJ J J A45.2 34.2 RH-AR-22-2 (Dup) RH-AR-22-4 6/17/2009 UJ J J A45.5 28.5 RH-AR-22-4 RH-AR-22-4 6/17/2009 UJ J J A45.5 28.5 RH-AR-22-4 RH-AR-22-5 6/17/2009 UJ J J A45.5 28.5 RH-AR-22-6 RH-AR-22-7 6/17/2009 UJ J J A45.5 28.5 RH-AR-22-8 RH-AR-22-8 6/17/2009 UJ J J A45.2 34.2 RH-AR-23-0.5 RH-AR-23-0.5 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-0.5 RH-AR-23-0.5 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-1 RH-AR-23-2 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-2 RH-AR-23-3 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-1 RH-AR-23-2 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-2 RH-AR-23-3 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-1 RH-AR-23-2 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-2 RH-AR-23-3 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-3 RH-AR-23-3 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-23-4 RH-AR-23-4 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-24-2 RH-AR-24-2 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-24-4 RH-AR-24-2 6/17/2009 UJ A3.4 13.2 84.2 53.4 RH-AR-24-4 RH-AR-24-2 6/17/2009 UJ A3.4 13.2 84.2 RH-AR-24-4 RH-AR-24-4 6/17/2009 UJ A3.4 13.3 13.5 13.5 13.5 13.5 13.5 13.5 13.5	RH-AR-21-0.5	RH-AR-21-0.5	6/17/2009	UJ		J		
RH-AR-21-4 RH-AR-21-4 6/17/2009 UJ J J WAS SET SET SET SET SET SET SET SET SET SE				< 0.55	43.1	7	46.2	40.1
RH-AR-21-4 RH-AR-21-4 6/17/2009 UJ J J J J A A A A A A A A A A A A A A	RH-AR-21-2	RH-AR-21-2	6/17/2009	UJ		J		
RH-AR-21-8 RH-AR-21-8 6/17/2009 UJ J J SAL2 RH-AR-22-0.5 RH-AR-22-0.5 6/17/2009 UJ J J J SAL2 RH-AR-22-0.5 RH-AR-22-0.5 6/17/2009 UJ J J J SAL2 RH-AR-22-1 RH-AR-22-2 6/17/2009 UJ J J J SAL2 RH-AR-22-2 RH-AR-22-2 6/17/2009 UJ J J J J SAL2 RH-AR-22-2 (Dup) RH-AR-1022-2 6/17/2009 U J SAL2 RH-AR-22-4 RH-AR-22-4 6/17/2009 U SAL2 RH-AR-22-8 RH-AR-22-8 6/17/2009 U SAL2 RH-AR-23-0.5 RH-AR-23-0.5 6/17/2009 U SAL2 RH-AR-23-0.5 RH-AR-23-0.5 6/17/2009 U SAL2 RH-AR-23-2 RH-AR-23-2 6/17/2009 U SAL2 RH-AR-23-2 RH-AR-23-2 6/17/2009 U SAL2 RH-AR-23-4 RH-AR-23-4 6/17/2009 U SAL2 RH-AR-23-4 RH-AR-23-4 6/17/2009 U SAL2 RH-AR-23-4 RH-AR-23-4 6/17/2009 U SAL2 RH-AR-23-5 RH-AR-23-6 6/17/2009 U SAL2 RH-AR-24-0.5 RH-AR-23-6 6/17/2009 U SAL2 RH-AR-24-0.5 RH-				< 0.56	45.3	6.6	54.1	42.7
RH-AR-21-8 RH-AR-21-8 6/17/2009 UJ J J J S 34.2 RH-AR-22-0.5 RH-AR-22-0.5 6/17/2009 UJ J J J S 28.5 RH-AR-22-2 RH-AR-22-2 6/17/2009 UJ J J J S 28.5 RH-AR-22-2 (Dup) RH-AR-1022-2 6/17/2009 UJ J J S 28.5 RH-AR-22-4 RH-AR-22-4 6/17/2009 UJ J J S 28.5 RH-AR-22-4 RH-AR-22-4 6/17/2009 UJ S 20.55 40.2 5.9 50.4 23.4 S 84.2 53.4 RH-AR-22-4 RH-AR-22-4 6/17/2009 UJ S 20.56 63.5 7.6 65.1 44.5 RH-AR-22-8 RH-AR-22-8 6/17/2009 UJ S 20.56 63.5 7.6 65.1 44.5 RH-AR-23-0.5 RH-AR-23-0.5 6/17/2009 UJ S 20.56 40.2 10.6 31.9 25.1 RH-AR-23-4 RH-AR-23-4 6/17/2009 UJ S 20.56 40.2 10.6 31.9 25.1 RH-AR-23-8 RH-AR-23-4 6/17/2009 UJ S 20.56 51.1 6.7 75.9 45.2 RH-AR-23-8 RH-AR-23-8 RH-AR-23-8 6/17/2009 UJ S 20.58 42.2 78.3 28.9 41.9 RH-AR-24-0.5 RH-AR-24-0.5 6/17/2009 UJ S 20.56 53.9 12.5 31.5 24.2 RH-AR-24-4 RH-AR-24-4 RH-AR-24-4 6/17/2009 UJ S 20.57 52.4 20.8 41.7 31 RH-AR-24-4 RH-AR-24-4 RH-AR-24-4 6/17/2009 UJ S 20.57 52.4 20.8 41.7 31 RH-AR-24-4 RH-AR-24-4 6/17/2009 UJ S 20.57 52.4 20.8 41.7 31 RH-AR-24-4 RH-AR-24-4 6/17/2009 UJ S 20.57 52.4 20.8 41.7 31 RH-AR-24-4 RH-AR-24-4 6/17/2009 UJ S 23.9 RH-AR-24-8 RH	RH-AR-21-4	RH-AR-21-4	6/17/2009	UJ		J		
RH-AR-22-0.5 RH-AR-22-0.5 6/17/2009 UJ J J J S S S S S S S S S S S S S S S				<0.58	55	3.4	42.3	47.6
RH-AR-22-0.5 RH-AR-22-0.5 6/17/2009 UJ J J J S S S S S S S S S S S S S S S	RH-AR-21-8	RH-AR-21-8	6/17/2009	UJ		J		
RH-AR-22-2 RH-AR-22-2 6/17/2009 UJ J J S.				< 0.55	40.7	49.9	45.2	34.2
RH-AR-22-2 RH-AR-22-2 6/17/2009 UJ J S.9 50.4 23.4 RH-AR-22-2 (Dup) RH-AR-1022-2 6/17/2009 U S.58 54.8 13.2 84.2 53.4 RH-AR-22-4 RH-AR-22-4 6/17/2009 U S.56 63.5 7.6 65.1 44.5 RH-AR-22-8 RH-AR-22-8 6/17/2009 U S.57 52.4 20.8 41.7 31 RH-AR-23-0.5 RH-AR-24-8	RH-AR-22-0.5	RH-AR-22-0.5	6/17/2009	UJ		J		
RH-AR-22-2 (Dup) RH-AR-1022-2 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-8 RH-AR-22-8 RH-AR-22-8 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-2 RH-AR-23-2 RH-AR-23-4 RH-AR-23-4 RH-AR-23-4 RH-AR-23-5 RH-AR-23-4 RH-AR-23-6 RH-AR-23-8 RH-AR-23-8 RH-AR-23-8 RH-AR-23-8 RH-AR-23-8 RH-AR-24-0.5 RH-AR-24-0.5 RH-AR-24-0.5 RH-AR-24-1 RH				<0.54	39.9	7.1	49.5	28.5
RH-AR-22-2 (Dup) RH-AR-1022-2 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-4 RH-AR-22-8 RH-AR-22-8 RH-AR-22-8 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-2 RH-AR-23-2 RH-AR-23-2 RH-AR-23-4 RH-AR-23-4 RH-AR-23-4 RH-AR-23-8 RH-AR-23-8 RH-AR-24-0.5 RH-AR-24-	RH-AR-22-2	RH-AR-22-2	6/17/2009	UJ		J		
RH-AR-22-4 RH-AR-22-4 6/17/2009 U				< 0.55	40.2	5.9	50.4	23.4
RH-AR-22-4 RH-AR-22-8 6/17/2009 U	RH-AR-22-2 (Dup)	RH-AR-1022-2	6/17/2009	U				
RH-AR-22-8 RH-AR-22-8 RH-AR-22-8 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-0.5 RH-AR-23-2 RH-AR-23-2 RH-AR-23-2 RH-AR-23-4 RH-AR-23-4 RH-AR-23-8 RH-AR-23-8 RH-AR-24-0.5 RH-AR-24-2 RH-AR-24-2 RH-AR-24-2 RH-AR-24-4 RH-AR-24-8 RH-AR-24-8 RH-AR-24-8 RH-AR-24-0 RH-LP-25-0 RH-LP-25-0 RH-LP-1025-0 RH-LP-1025-				<0.58	54.8	13.2	84.2	53.4
RH-AR-22-8 RH-AR-22-8 6/17/2009 U	RH-AR-22-4	RH-AR-22-4	6/17/2009	U				
RH-AR-23-0.5 RH-AR-23-0.5 6/17/2009 U				<0.56	63.5	7.6	65.1	44.5
RH-AR-23-0.5 RH-AR-23-0.5 6/17/2009 U	RH-AR-22-8	RH-AR-22-8	6/17/2009	U				
RH-AR-23-2 RH-AR-23-2 RH-AR-23-2 RH-AR-23-4 RH-AR-23-4 RH-AR-23-4 RH-AR-23-4 RH-AR-23-8 RH-AR-23-8 RH-AR-24-0.5 RH-AR-24-0.5 RH-AR-24-2 RH-AR-24-2 RH-AR-24-2 RH-AR-24-2 RH-AR-24-4 RH-AR-24-8 RH-AR-24-8 RH-AR-24-8 RH-AR-24-8 RH-AR-24-8 RH-LP-25-0 RH-LP-25-0 RH-LP-25-0 RH-LP-1025-0 RH-LP-10				< 0.54	47.7	17.5	32.3	34.2
RH-AR-23-2 RH-AR-23-2 6/17/2009 U	RH-AR-23-0.5	RH-AR-23-0.5	6/17/2009	U				
RH-AR-23-4 RH-AR-23-4 6/17/2009 U 0.56 40.2 10.6 31.9 25.1 RH-AR-23-8 RH-AR-23-8 6/17/2009 U				< 0.54	40.5	9.7	36.9	36.1
RH-AR-23-4 RH-AR-23-4 6/17/2009 U	RH-AR-23-2	RH-AR-23-2	6/17/2009	U				
RH-AR-23-8 RH-AR-23-8 RH-AR-24-0.5 RH-AR-24-0.5 RH-AR-24-0.5 RH-AR-24-2 RH-AR-24-2 RH-AR-24-4 RH-AR-24-8 RH-AR-24-8 RH-AR-24-8 RH-AR-24-8 RH-LP-25-0 RH-RH-RH-RH-RH-RH-RH-RH-RH-RH-RH-RH-RH-R				<0.56	40.2	10.6	31.9	25.1
RH-AR-23-8 RH-AR-23-8 6/17/2009 U	RH-AR-23-4	RH-AR-23-4	6/17/2009	U				
RH-AR-24-0.5 RH-AR-24-0.5 6/17/2009 U				< 0.56	51.1	6.7	75.9	45.2
RH-AR-24-0.5 RH-AR-24-0.5 6/17/2009 U	RH-AR-23-8	RH-AR-23-8	6/17/2009	U				
RH-AR-24-2 RH-AR-24-2 6/17/2009 U				<0.58	42.2	78.3	28.9	41.9
RH-AR-24-2 RH-AR-24-2 6/17/2009 U	RH-AR-24-0.5	RH-AR-24-0.5	6/17/2009	U				
RH-AR-24-4 RH-AR-24-4 6/17/2009 U					53.9	12.5	31.5	24.2
RH-AR-24-4 RH-AR-24-4 6/17/2009 U RH-AR-24-4 (Dup) RH-AR-1024-4 6/17/2009 U RH-AR-24-8 RH-AR-24-8 6/17/2009 U RH-LP-25-0 RH-LP-25-0 6/16/2009 RH-LP-25-0 (Dup) RH-LP-1025-0 6/16/2009 RH-LP-35-0 (Dup) RH-LP-1025-0 6/16/2009 RH-LP-25-0 (Dup) RH-LP-1025-0 Inc.	RH-AR-24-2	RH-AR-24-2	6/17/2009	U				
RH-AR-24-4 (Dup) RH-AR-1024-4 6/17/2009 U				<0.57	52.4	20.8	41.7	31
RH-AR-24-4 (Dup) RH-AR-1024-4 6/17/2009 U 	RH-AR-24-4	RH-AR-24-4	6/17/2009	U				
RH-AR-24-8 RH-AR-24-8 6/17/2009 U 23.9 RH-LP-25-0 RH-LP-25-0 6/16/2009 25.1 RH-LP-25-0 (Dup) RH-LP-1025-0 6/16/2009 J 16.3					53.5	17.6	51.3	33.3
RH-AR-24-8 RH-AR-24-8 6/17/2009 U 23.9 RH-LP-25-0 RH-LP-25-0 6/16/2009 25.1 RH-LP-25-0 (Dup) RH-LP-1025-0 6/16/2009 J 16.3	RH-AR-24-4 (Dup)	RH-AR-1024-4	6/17/2009	U				
RH-LP-25-0 RH-LP-25-0 6/16/2009 23.9 RH-LP-25-0 (Dup) RH-LP-1025-0 6/16/2009 J 16.3				<0.57	60.2	11.5	59.1	49.6
RH-LP-25-0 RH-LP-25-0 6/16/2009 25.1 RH-LP-25-0 (Dup) RH-LP-1025-0 6/16/2009 J 16.3	RH-AR-24-8	RH-AR-24-8	6/17/2009	U				
RH-LP-25-0 (Dup) RH-LP-1025-0 6/16/2009 25.1 J 16.3						23.9		
RH-LP-25-0 (Dup) RH-LP-1025-0 6/16/2009 J 16.3	RH-LP-25-0	RH-LP-25-0	6/16/2009					
16.3						25.1		
	RH-LP-25-0 (Dup)	RH-LP-1025-0	6/16/2009			J		
RH-LP-25-1 RH-LP-25-1 6/16/2009						16.3		
	RH-LP-25-1	RH-LP-25-1	6/16/2009					

	Cadmium	Chromium	Lead	Nickel	Zinc
Residential CHHSL (mg/kg)	1.7		150	1,600	23,000
Residential USEPA RSL (mg/kg)	70	280	400	1,500	23,000
Residential ESL Shallow Soil (mg/kg)	1.7		200	150	600

		(
Sample Location	Sample ID	Sample Date					
					11.4		
RH-LP-25-2	RH-LP-25-2	6/16/2009					
					102		
RH-LP-26-0	RH-LP-26-0	6/16/2009			-		
				I		I	
RH-LP-26-1	RH-LP-26-1	6/16/2009	Sample not ana	alyzed. On lab rec	eipt of sampl	e. container v	vas broken.
-				T	14.1	Ĭ	
RH-LP-26-2	RH-LP-26-2	6/16/2009					
					339		
RH-LP-27-0	RH-LP-27-0	6/16/2009					
-	-				17.4		
RH-LP-27-1	RH-LP-27-1	6/16/2009					
·					20.2		
RH-LP-27-1 (Dup)	RH-LP-1027-1	6/16/2009			J		
· · (= 			1		6.1		
RH-LP-27-2	RH-LP-27-2	6/16/2009					
					359		
RH-LP-28-0	RH-LP-28-0	6/16/2009					
1 2. 200	1111 21 200	0/10/2000			14.5		
RH-LP-28-1	RH-LP-28-1	6/16/2009					
1111 20 1	1111 20 1	0/10/2000	1		17.9		
RH-LP-28-2	RH-LP-28-2	6/16/2009					
11.11 20 2	1111 21 20 2	0/10/2000			190		
RH-LP-29-0	RH-LP-29-0	6/16/2009			100		
1111 20 0	1111 21 20 0	0/10/2000			110		
RH-LP-29-1	RH-LP-29-1	6/16/2009			110		
INITEL 23 I	KII LI 23 I	0/10/2003			6.9		
RH-LP-29-2	RH-LP-29-2	6/16/2009			0.5		
INITEL ZOZ	KII LI ZJ Z	0/10/2003			228		
RH-LP-30-0	RH-LP-30-0	6/16/2009			J		
TATI LI OU U	KII LI OO O	0/10/2003			30.7		
RH-LP-30-1	RH-LP-30-1	6/16/2009			J		
1111 21 00 1	2. 00 .	071072000			10.4		
RH-LP-30-2	RH-LP-30-2	6/16/2009			J		
INITE OU E	MILI OU Z	3/10/2003	5.0	10.0	10.0	40.0	5.1
Rinse Blank	RH-RB01-061609	6/16/2009	U	U	IJ	U	J
Tillioc Blank	11.11.001.001003	3/10/2003	5.0	10.0	10.0	40.0	2.1
Rinse Blank	RH-RB02-061709	6/17/2009	U	U	U	U	J
Killso Dialik		G/11/2003	5.0	10.0	10.0	40.0	60.0
Rinse Blank	RH-RB03-061809	6/18/2009	U	U	U	U	U
Killoo Bialik		0, 10, £000	5.0	10.0	10.0	40.0	60.0
Rinse Blank	RH-RB04-061909	6/19/2009	U	U	U	U	U
Milioe Dialik	1/11-1/1004-001303	0/13/2003	<u> </u>				_

Laboratory Notes

U = Analyte not detected

J = Estimated result.

General Notes

CHHSL = California Human Health Screening Level, - California EPA, January 2005

ESL = Environmental Screening Level, CA Regional Water Quality Control Board, May 2008

RSL = Regional Screening Levels, U.S. EPA Region 9, September 2008

USEPA = United States Environmental Protection Agency

mg/kg = Milligrams per kilograms

ug/L = Micrograms per liter

<X = Indicates analyte was not detected at or above reporting limit X

410 = Results listed exceeded the lowest applicable screening level.
410 = Results listed in bold exceeded the laboratory reporting limit

Dup = Duplicate sample.

				Bertene	Tollege	thylographe tr. XY	ere a primer	o Aylene	Meres, Total
		Residential CHHSL				(` 		ĺ	ſ
		(ug/m3)	36.2	135,000				315,000	
		Residential USEPA							
		RSL (ug/m3)	0.310	5,200	0.97	1,460	730	100	
		Residential ESL							
		(ug/m3)	84	63,000	980			21,000	
Sample Location	Sample ID	Sample Date							_
			20	20	5	20	5	25	
RH-SV-31-5	RH-SV-31-5	6/19/2009			C1, J		C1, J		
			20	20	4	10	<8	<18	
RH-SV-32-5	RH-SV-32-5A	6/19/2009			C1, J	C1, J	U		
			20	20	4	10	<8	<18	
RH-SV-32-5	RH-SV-1032-5 (Dup)	6/19/2009			J	C1, J	U		
			20	10	<8	8	<8	<16	
RH-SV-33-5	RH-SV-33-5	6/19/2009			U	C1, J	U		
			<7	<7	<8	<20	<8	<28	
RH-SV-BKG	RH-SV-BKG	6/19/2009	U	U	U	U	U	U	

Laboratory Notes

U = Analyte not detected

J = Estimated result.

C1 = The reported concentration for this analyte is below the quantitation limit.

General Notes

CHHSL = California Human Health Screening Level, - California EPA, January 2005

ESL = Environmental Screening Level, CA Regional Water Quality Control Board, May 2008

RSL = Regional Screening Levels, U.S. EPA Region 9, September 2008

* RSL is presented for comparison, but not used as a screen level. RSLs apply to indoor air concentrations and would have to be corrected for use in evaluating soil vapor results.

USEPA = United States Environmental Protection Agency

ug/m³ = Micrograms per cubic meter of air

Dup = Duplicate sample.

ms/msd = matrix spike/matrix spike duplicate

<X = Indicates analyte was not detected at or above reporting limit X</p>
20 = Results listed in bold exceeded the laboratory reporting limit